					DEPARTMENT	T OF NA	OF UTAH TURAL RES GAS AND M				AMEN	FO DED REPOR	RM 3	
		AF	PLICATION	FOR PE	RMIT TO DRILL					1. WELL NAME and N		-27-8-17		
2. TYPE O	F WORK	DRILL NEW WELL	REENTI	ER P&A W	/ELL DEEPEN	WELL	)			3. FIELD OR WILDCAT		NT BUTTE		
4. TYPE O	F WELL	0	il Well (	Coalbed M	Methane Well: NO					5. UNIT or COMMUNIT	FIZATION GMBU (		ENT NAM	1E
6. NAME (	OF OPERATOR		NEWFIELD PR	ODUCTIO	ON COMPANY					7. OPERATOR PHONE		·		
8. ADDRE	SS OF OPERAT	OR			n, UT, 84052					9. OPERATOR E-MAIL	-	ewfield.co	m	
	AL LEASE NUM		THE O BOX GOO	11.	. MINERAL OWNERS	SHIP				12. SURFACE OWNER				
		UTU-77233	16 1)		FEDERAL (III) INC	DIAN (	STATE	) FEE(	2		DIAN (	STATE		EE(_)
13. NAME OF SURFACE OWNER (if box 12 = 'fee')  15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')										14. SURFACE OWNER		`	·	
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')										16. SURFACE OWNER	R E-MAIL	(if box 12	= 'fee')	
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')					B. INTEND TO COMM ULTIPLE FORMATIO		PRODUCTION	NFROM		19. SLANT				
(	,				YES (Submit C	Comming	gling Applicati	ion) NO [	)	VERTICAL DIF	RECTION	AL 📵 H	IORIZON	TAL 🔵
20. LOC	TION OF WELL			FOOT	AGES	QT	FR-QTR	SECTION	ON	TOWNSHIP	R	ANGE	МЕ	ERIDIAN
LOCATIO	N AT SURFACE		9	15 FSL :	2068 FEL	5	SWSE	22		8.0 S	1	7.0 E		S
Top of U	ppermost Prod	ucing Zone	2	69 FSL	1570 FEL	S	SWSE	22		8.0 S	1	7.0 E		S
At Total	Depth		2	97 FNL	1162 FEL		NENE	27		8.0 S 1		7.0 E		S
21. COUN	TY	DUCHESNE		22.	DISTANCE TO NEAREST LEASE LINE (Feet) 297					23. NUMBER OF ACRE	ES IN DR		IT	
					. DISTANCE TO NEAREST WELL IN SAME POOL pplied For Drilling or Completed) 872				26. PROPOSED DEPTI	H D: 6847	TVD: 665	0		
27. ELEV	ATION - GROUN	ID LEVEL		28	8. BOND NUMBER				29. SOURCE OF DRILL WATER RIGHTS APPR			DDI ICAD	ı E	
		5172			WYB000493				WATER RIGHTS AFFR	437		FFLICAB	<b>LL</b>	
String	Hole Size	Casing Size	Longth	Weigh	Hole, Casing, and Cement Information				Cement Sacks Yield Wei					
Surf	12.25	8.625	0 - 300	24.0			Max Mud Wt.			Cement Class G		138	1.17	15.8
Prod	7.875	5.5	0 - 6847	15.5			8.3		Pren	nium Lite High Strer	ngth	335	3.26	11.0
										50/50 Poz 363 1.24			14.3	
					A	TTACH	IMENTS							
	VER	IFY THE FOLLO	WING ARE A	TTACHE	ED IN ACCORDAN	ICE WIT	TH THE UT	AH OIL ANI	D GAS	CONSERVATION G	ENERA	L RULES		
<b>w</b> w	ELL PLAT OR M	AP PREPARED BY I	LICENSED SUR	VEYOR O	OR ENGINEER		<b>№</b> сом	IPLETE DRIL	LING PL	_AN				
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)							FORM	M 5. IF OPER	ATOR IS	S OTHER THAN THE LE	EASE OW	NER		
<b>I</b> ✓ DII	RECTIONAL SUI	RVEY PLAN (IF DIR	ECTIONALLY (	OR HORIZ	ZONTALLY DRILLED	))	<b>г</b> торо	OGRAPHICAL	L MAP					
NAME M	andie Crozier		TITLE Regulatory	TITLE Regulatory Tech PHO			PHOI	HONE 435 646-4825						
SIGNATU	RE				<b>DATE</b> 04/04/201	2			EMAI	L mcrozier@newfield.c	com			
	BER ASSIGNED )1351361(	0000			APPROVAL				B	Bacquill				
									Pe	rmit Manager				

# NEWFIELD PRODUCTION COMPANY GMBU B-27-8-17 AT SURFACE: SW/SE SECTION 22, T8S R17E DUCHESNE COUNTY, UTAH

#### TEN POINT DRILLING PROGRAM

#### 1. **GEOLOGIC SURFACE FORMATION:**

Uinta formation of Upper Eocene Age

# 2. <u>ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS:</u>

 Uinta
 0' – 1795'

 Green River
 1795'

 Wasatch
 6515'

 Proposed TD
 6847'

## 3. <u>ESTIMATED DEPTHS OF ANTICIPATED WATER, OIL, GAS OR MINERALS:</u>

Green River Formation (Oil) 1795' – 6515'

Fresh water may be encountered in the Uinta Formation, but would not be expected below about 350'. All water shows and water bearing geologic units shall be reported to the geologic and engineering staff of the Vernal Office prior to running the next string of casing or before plugging orders are requested. All water shows must be reported within one (1) business day after being encountered.

All usable (<10,000 PPM TDS) water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling will be recorded by depth and adequately protected. This information shall be reported to the Vernal Office.

Detected water flows shall be sampled, analyzed, and reported to the geologic & engineering staff of the Vernal Office. The office may request additional water samples for further analysis. Usage of the State of Utah form *Report of Water Encountered* is acceptable, but not required.

The following information is requested for water shows and samples where applicable:

Location & Sampled Interval Date Sampled Flow Rate Temperature

Hardness pH

Water Classification (State of Utah)

Dissolved Calcium (Ca) (mg/l)

Dissolved Iron (Fe) (ug/l)

Dissolved Sodium (Na) (mg/l)

Dissolved Carbonate (CO<sub>3</sub>) (mg/l)

Dissolved Bicarbonate (NaHCO<sub>3</sub>) (mg/l)

Dissolved Sulfate (SO<sub>4</sub>) (mg/l)

Dissolved Total Solids (TDS) (mg/l)

RECEIVED: April 04, 2012

#### 4. PROPOSED CASING PROGRAM

a. Casing Design: GMBU B-27-8-17

Size	Interval		Maiabt	Grade	Coupling	Design Factors			
	Тор	Bottom	Weight	Grade	Couping	Burst	Collapse	Tension	
Surface casing	0'	300'	24.0	J-55	STC	2,950	1,370	244,000	
8-5/8"	U	300	24.0	J-55	310	17.53	14.35	33.89	
Prod casing	O'	6.047	1F F	1.55	LTC	4,810	4,040	217,000	
5-1/2"	0'	6,847'	15.5	J-55	LTC	2.21	1.85	2.04	

#### Assumptions:

- 1) Surface casing max anticipated surface press (MASP) = Frac gradient gas gradient
- 2) Prod casing MASP (production mode) = Pore pressure gas gradient
- 3) All collapse calculations assume fully evacuated casing w/ gas gradient
- 4) All tension calculations assume air weight

Frac gradient at surface casing shoe = 13.0 ppg
Pore pressure at surface casing shoe = 8.33 ppg
Pore pressure at prod casing shoe = 8.33 ppg
Gas gradient = 0.115 psi/ft

All casing shall be new or, if used, inspected and tested. Used casing shall meet or exceed API standards for new casing.

All casing strings shall have a minimum of 1 (one) centralizer on each of the bottom three (3) joints.

b. Cementing Design: GMBU B-27-8-17

Job	Fill	Description	Sacks ft <sup>3</sup>	OH Excess*	Weight (ppg)	Yield (ft³/sk)	
Surface casing	300'	Class G w/ 2% CaCl	138	30%	15.8	1.17	
J			161				
Prod casing	4,847'	Prem Lite II w/ 10% gel + 3%	335	30%	11.0	3.26	
Lead	4,047	KCI	1092	30 %	11.0	3.20	
Prod casing	2,000'	50/50 Poz w/ 2% gel + 3%	363	30%	14.3	1.24	
Tail	2,000	KCI	451	30%	14.5	1.24	

<sup>\*</sup>Actual volume pumped will be 15% over the caliper log

- Compressive strength of lead cement: 1800 psi @ 24 hours, 2250 psi @ 72 hours
- Compressive strength of tail cement: 2500 psi @ 24 hours

Hole Sizes: A 12-1/4" hole will be drilled for the 8-5/8" surface casing. A 7-7/8" hole will be drilled for the 5-1/2" production casing.

The 8-5/8" surface casing shall in all cases be cemented back to surface. In the event that during the primary surface cementing operation the cement does not circulate to surface, or if the cement level should fall back more than 8 feet from surface, then a remedial surface cementing operation shall be performed to insure adequate isolation and stabilization of the surface casing.

#### 5. <u>MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL</u>:

The operator's minimum specifications for pressure control equipment are as follows:

An 8" Double Ram Hydraulic unit with a closing unit will be utilized. Function test of BOP's will be check daily.

Refer to Exhibit C for a diagram of BOP equipment that will be used on this well.

#### 6. TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATION MUDS:

From surface to ±300 feet will be drilled with an air/mist system. The air rig is equipped with a 6 ½" blooie line that is straight run and securely anchored. The blooie line is used with a discharge less than 100 ft from the wellbore in order to minimize the well pad size. The blooie line is not equipped with an automatic igniter or continuous pilot light and the compressor is located less than 100 ft from the well bore due to the low possibility of combustion with the air dust mixture. The trailer mounted compressor (capacity of 2000 CFM) has a safety shut-off valve which is located 15 feet from the air rig. A truck with 70 bbls of water is on stand by to be used as kill fluid, if necessary. From about ±300 feet to TD, a fresh water system will be utilized. Clay inhibition and hole stability will be achieved with a KCl substitute additive. This additive will be identified in the APD and reviewed to determine if the reserve pit shall be lined. This fresh water system will typically contain Total Dissolved Solids (TDS) of less than 3000 PPM. Anticipated mud weight is 8.4 lbs/gal. If necessary to control formation fluids or pressure, the system will be weighted with the addition of bentonite gel, and if pressure conditions warrant, with barite

No chromate additives will be used in the mud system on Federal and/or Indian lands without prior BLM approval to ensure adequate protection of fresh aquifers.

No chemicals subject to reporting under SARA Title III in an amount equal to or greater than 10,000 pounds will be used, produced, stored, transported, or disposed of annually in association with the drilling, testing, or completing of this well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completing of this well.

Hazardous substances specifically listed by the EPA as a hazardous waste or demonstrating a characteristic of a hazardous waste will not be used in drilling, testing, or completion operations.

Newfield Production will **visually** monitor pit levels and flow from the well during drilling operations.

#### 7. **AUXILIARY SAFETY EQUIPMENT TO BE USED:**

Auxiliary safety equipment will be a Kelly Cock, bit float, and a TIW valve with drill pipe threads.

#### 8. <u>TESTING, LOGGING AND CORING PROGRAMS</u>:

The logging program will consist of a Dual Induction, Gamma Ray and Caliper log from TD to base of surface casing @ 300' +/-, and a Compensated Neutron-Formation Density Log from TD to 3500' +-. A cement bond log will be run from PBTD to cement top. No drill stem testing or coring is planned for this well.

#### 9. <u>ANTICIPATED ABNORMAL PRESSURE OR TEMPERATURE</u>:

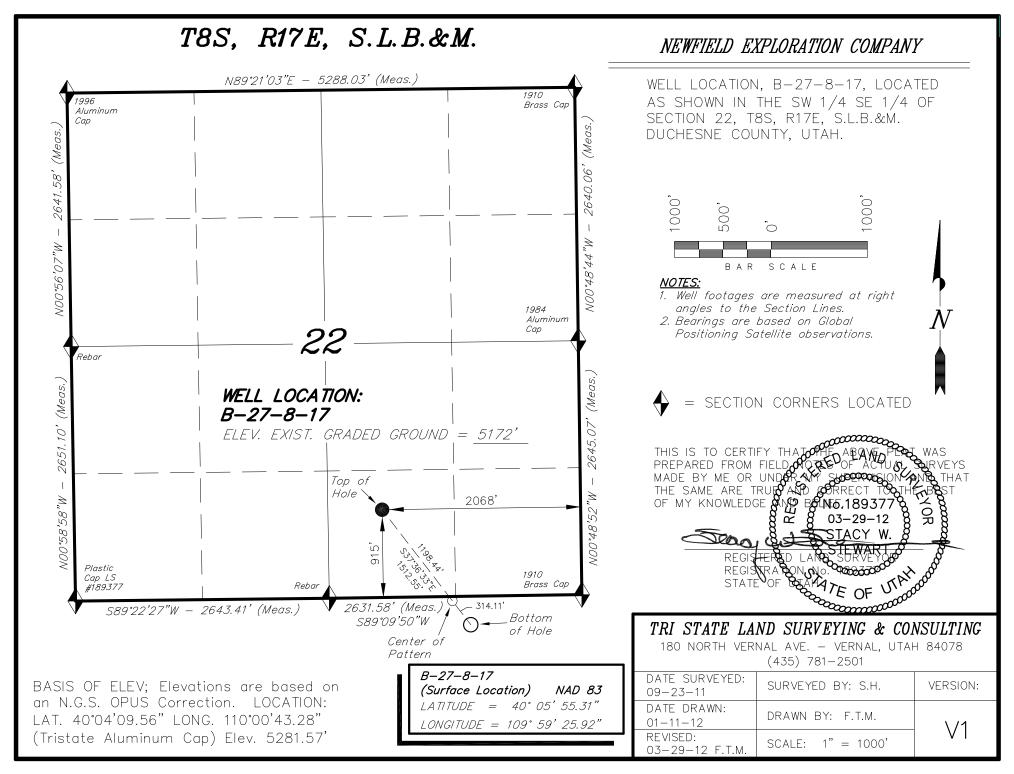
No abnormal temperatures or pressures are anticipated. No hydrogen sulfide has been encountered or is known to exist from previous drilling in the area at this depth. Maximum anticipated

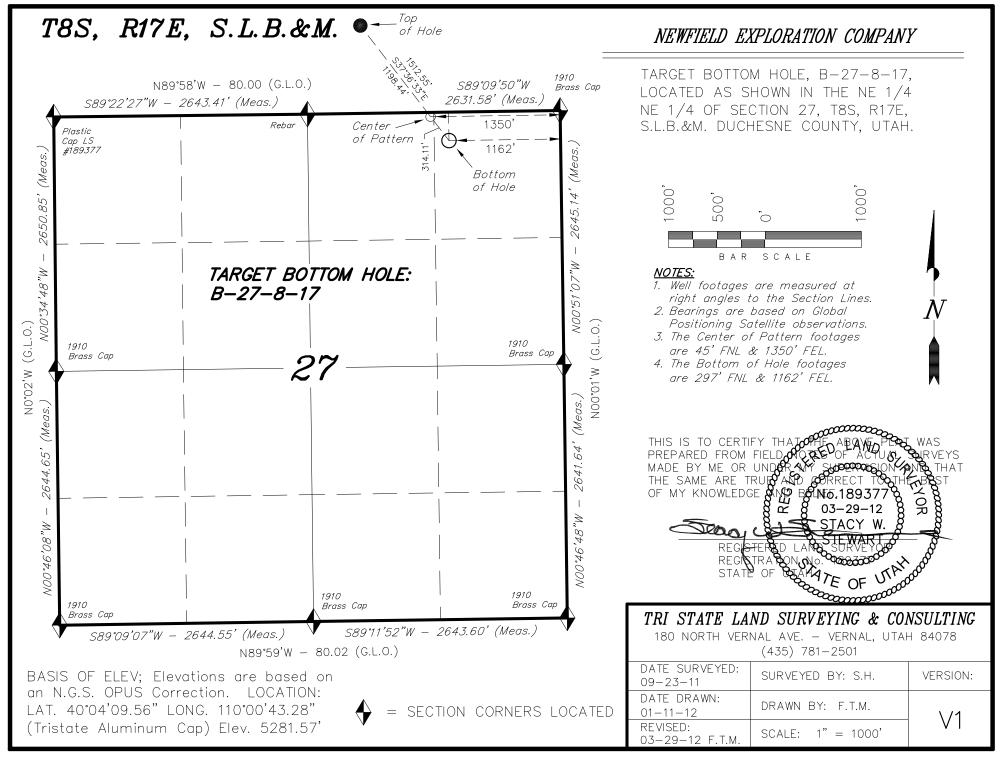
bottomhole pressure will approximately equal total depth in feet multiplied by a  $0.433~\mathrm{psi/foot}$  gradient.

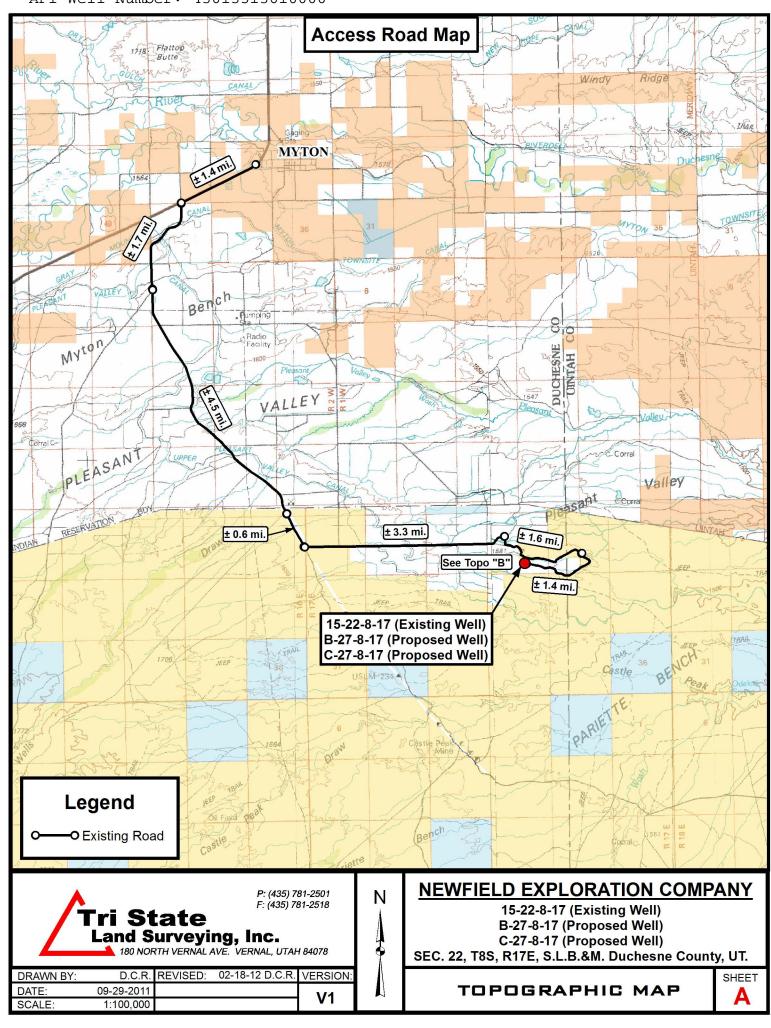
# 10. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS:

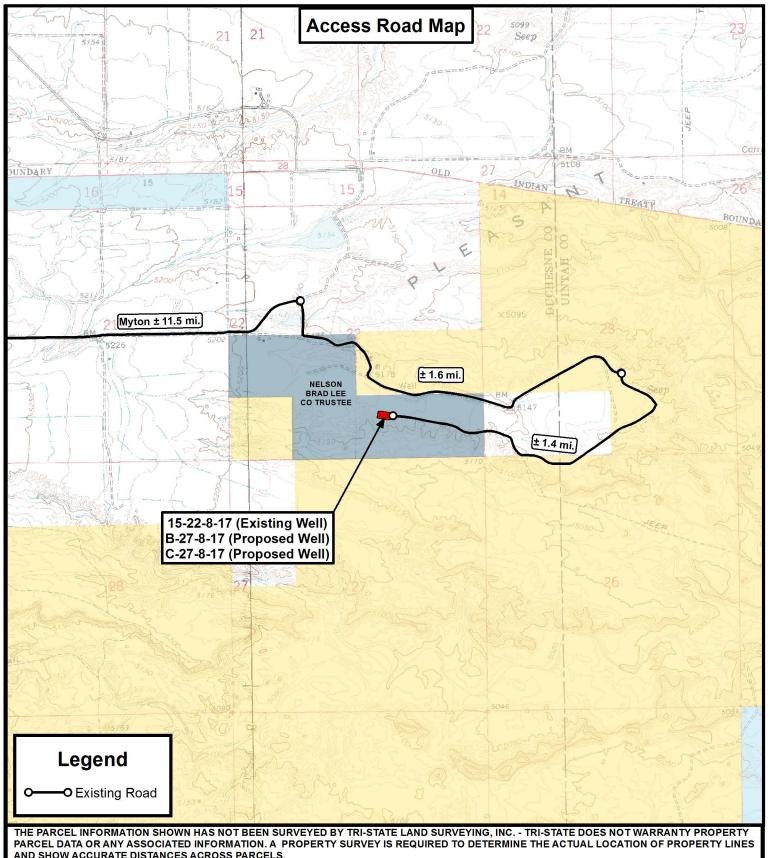
It is anticipated that the drilling operations will commence the third quarter of 2012, and take approximately seven (7) days from spud to rig release.

RECEIVED: April 04, 2012



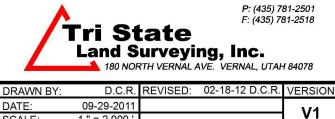






AND SHOW ACCURATE DISTANCES ACROSS PARCELS

Ν



1 " = 2,000

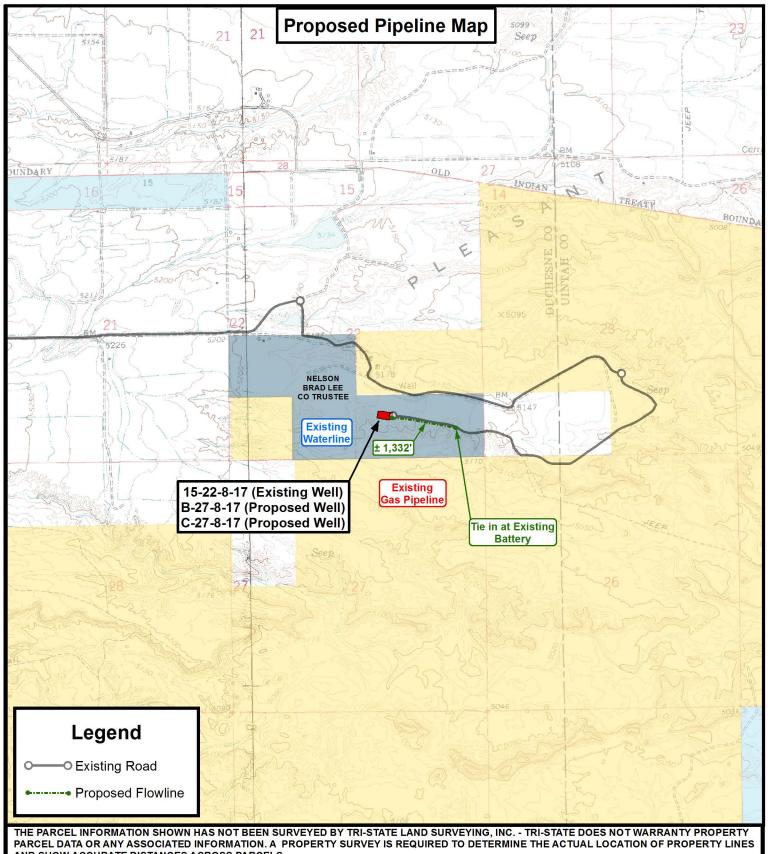
SCALE

# **NEWFIELD EXPLORATION COMPANY**

15-22-8-17 (Existing Well) B-27-8-17 (Proposed Well) C-27-8-17 (Proposed Well)

SEC. 22, T8S, R17E, S.L.B.&M. Duchesne County, UT.





AND SHOW ACCURATE DISTANCES ACROSS PARCELS.

Ν



P: (435) 781-2501 F: (435) 781-2518

180 NORTH VERNAL AVE. VERNAL, UTAH 84078

DRAWN BY:	D.C.R.	REVISED:	02-18-12 D.C.R.	VERSION:
DATE:	09-29-2011			V1
SCALE:	1 " = 2,000 '			VI

# **NEWFIELD EXPLORATION COMPANY**

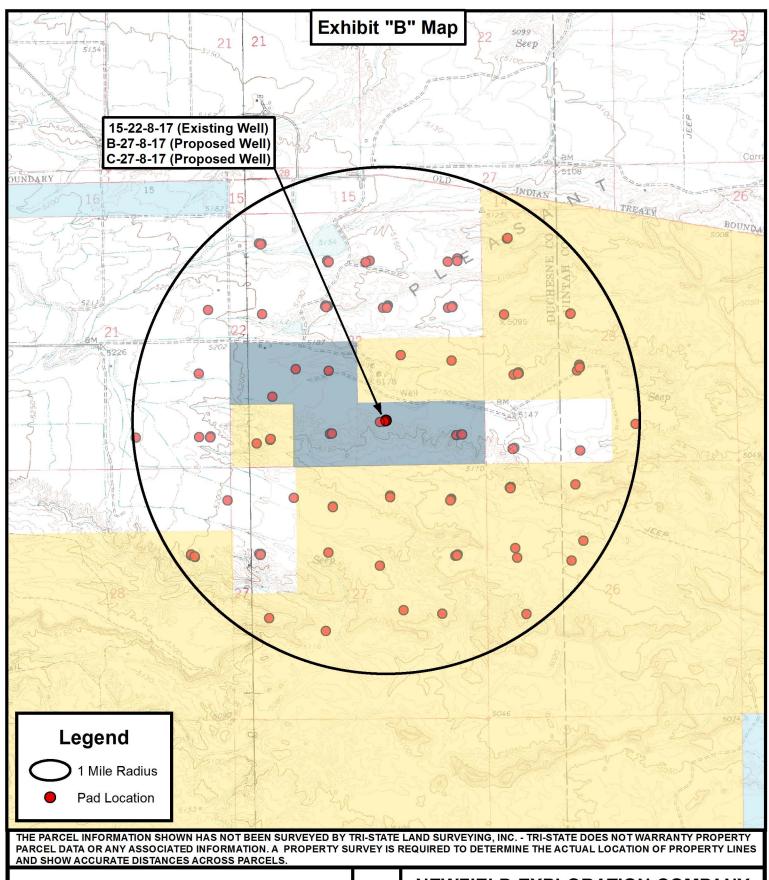
15-22-8-17 (Existing Well) B-27-8-17 (Proposed Well)

C-27-8-17 (Proposed Well)

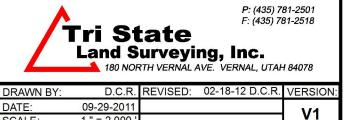
SEC. 22, T8S, R17E, S.L.B.&M. Duchesne County, UT.







N



SCALE

1 " = 2,000

# **NEWFIELD EXPLORATION COMPANY**

15-22-8-17 (Existing Well) B-27-8-17 (Proposed Well) C-27-8-17 (Proposed Well)

SEC. 22, T8S, R17E, S.L.B.&M. Duchesne County, UT.





# **NEWFIELD EXPLORATION**

USGS Myton SW (UT) SECTION 22 T8S, R17E B-27-8-17

Wellbore #1

Plan: Design #1

# **Standard Planning Report**

05 January, 2012





## **Payzone Directional**

**Planning Report** 



Database: EDM 2003.21 Single User Db Company: NEWFIELD EXPLORATION Project: USGS Myton SW (UT) Site: SECTION 22 T8S, R17E

 Well:
 B-27-8-17

 Wellbore:
 Wellbore #1

 Design:
 Design #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well B-27-8-17

B-27-8-17 @ 5184.0ft (Newfield Rig) B-27-8-17 @ 5184.0ft (Newfield Rig)

True

Minimum Curvature

Project USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA

Map System: US State Plane 1983 Syst

Geo Datum: North American Datum 1983

Map Zone: Utah Central Zone

System Datum: Mean Sea Level

**Site** SECTION 22 T8S, R17E, SEC 22 T8S, R17E

Northing: 7,208,900.00 ft Site Position: Latitude: 40° 6' 1.964 N From: Lat/Long Easting: 2,062,000.00 ft Longitude: 109° 59' 34.084 W **Position Uncertainty:** 0.0 ft Slot Radius: **Grid Convergence:** 0.97 °

Well B-27-8-17, SHL LAT: 40 05 55.31 LONG: -109 59 25.92

 Well Position
 +N/-S
 -673.3 ft
 Northing:
 7,208,237.49 ft
 Latitude:
 40° 5' 55.310 N

 +E/-W
 634.3 ft
 Easting:
 2,062,645.60 ft
 Longitude:
 109° 59' 25.920 W

Position Uncertainty 0.0 ft Wellhead Elevation: 5,184.0 ft Ground Level: 5,172.0 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/5/2012	11.22	65.84	52,257

Design	Design #1					
Audit Notes:						
Version:		Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:		Depth From (TVD)	+N/-S	+E/-W	Direction	
		(ft)	(ft)	(ft)	(°)	
		5,500.0	0.0	0.0	142.39	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,618.5	15.28	142.39	1,606.4	-106.9	82.4	1.50	1.50	0.00	142.39	
5,654.6	15.28	142.39	5,500.0	-949.4	731.4	0.00	0.00	0.00	0.00	B-27-8-17 TGT
6,846.8	15.28	142.39	6,650.0	-1,198.2	923.1	0.00	0.00	0.00	0.00	



# **Payzone Directional**

**Planning Report** 



Database: EDM 2003.21 Single User Db Company: NEWFIELD EXPLORATION Project: USGS Myton SW (UT) Site: SECTION 22 T8S, R17E

 Well:
 B-27-8-17

 Wellbore:
 Wellbore #1

 Design:
 Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well B-27-8-17

B-27-8-17 @ 5184.0ft (Newfield Rig) B-27-8-17 @ 5184.0ft (Newfield Rig)

True

Minimum Curvature

Design:	Design #1								
Planned Survey									
r lainled Survey									
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
(1.4)	()	()	(1.7)	(11)	(11)	(1.5)	( / 1001.,	( / 10011)	(710011)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	1.50	142.39	700.0	-1.0	8.0	1.3	1.50	1.50	0.00
800.0	3.00	142.39	799.9	-4.1	3.2	5.2	1.50	1.50	0.00
900.0	4.50	142.39	899.7	-9.3	7.2	11.8	1.50	1.50	0.00
1,000.0	6.00	142.39	999.3	-16.6	12.8	20.9	1.50	1.50	0.00
1,100.0	7.50	142.39	1,098.6	-25.9	19.9	32.7	1.50	1.50	0.00
1,200.0	9.00	142.39	1,197.5	-37.3	28.7	47.0	1.50	1.50	0.00
1,300.0	10.50	142.39	1,296.1	-50.7	39.0	64.0	1.50	1.50	0.00
1,400.0	12.00	142.39	1,394.2	-66.1	50.9	83.5	1.50	1.50	0.00
1,500.0	13.50	142.39	1,491.7	-83.6	64.4	105.5	1.50	1.50	0.00
1,600.0	15.00	142.39	1,588.6	-103.1	79.4	130.2	1.50	1.50	0.00
1,618.5	15.28	142.39	1,606.4	-106.9	82.4	135.0	1.50	1.50	0.00
1,700.0	15.28	142.39	1,685.1	-123.9	95.5	156.5	0.00	0.00	0.00
1,800.0	15.28	142.39	1,781.6	-144.8	111.6	182.8	0.00	0.00	0.00
1,900.0	15.28	142.39	1,878.0	-165.7	127.6	209.2	0.00	0.00	0.00
2,000.0	15.28	142.39	1,974.5	-186.6	143.7	235.5	0.00	0.00	0.00
2,100.0	15.28	142.39	2,071.0	-207.4	159.8	261.9	0.00	0.00	0.00
2,200.0	15.28	142.39	2,167.4	-228.3	175.9	288.2	0.00	0.00	0.00
2,300.0	15.28	142.39	2,263.9	-249.2	192.0	314.5	0.00	0.00	0.00
2,400.0	15.28	142.39	2,360.4	-270.1	208.0	340.9	0.00	0.00	0.00
2,500.0	15.28 15.28	142.39 142.39	2,456.8 2,553.3	-290.9 -311.8	224.1 240.2	367.2 393.6	0.00 0.00	0.00 0.00	0.00 0.00
2,600.0 2,700.0	15.28	142.39	2,649.8	-311.6	256.3	419.9	0.00	0.00	0.00
2,800.0	15.28	142.39	2,746.2	-353.5	272.4	446.3	0.00	0.00	0.00
2,900.0	15.28	142.39	2,842.7	-374.4	288.4	472.6	0.00	0.00	0.00
3,000.0	15.28	142.39	2,939.2	-395.3	304.5	499.0	0.00	0.00	0.00
3,100.0	15.28	142.39 142.39	3,035.6	-416.2	320.6	525.3	0.00 0.00	0.00 0.00	0.00
3,200.0 3,300.0	15.28 15.28	142.39	3,132.1 3,228.6	-437.0 -457.9	336.7 352.8	551.7 578.0	0.00	0.00	0.00 0.00
3,400.0	15.28	142.39	3,325.0	-478.8	368.8	604.4	0.00	0.00	0.00
3,500.0	15.28	142.39	3,421.5	-499.7	384.9	630.7	0.00	0.00	0.00
3,600.0	15.28	142.39	3,518.0	-520.5	401.0	657.1	0.00	0.00	0.00
3,700.0	15.28	142.39	3,614.4	-541.4	417.1	683.4	0.00	0.00	0.00
3,800.0	15.28	142.39	3,710.9	-562.3	433.2	709.8	0.00	0.00	0.00
3,900.0	15.28	142.39	3,807.4	-583.1	449.2	736.1	0.00	0.00	0.00
4,000.0	15.28	142.39	3,903.8	-604.0	465.3	762.5	0.00	0.00	0.00
4,100.0	15.28	142.39	4,000.3	-624.9	481.4	788.8	0.00	0.00	0.00
4,200.0	15.28	142.39	4,096.8	-645.8	497.5	815.2	0.00	0.00	0.00
4,300.0	15.28	142.39	4,193.2	-666.6	513.6	841.5	0.00	0.00	0.00
4,400.0	15.28	142.39	4,289.7	-687.5	529.6	867.9	0.00	0.00	0.00
4,500.0	15.28	142.39	4,386.2	-708.4	545.7	894.2	0.00	0.00	0.00
4,600.0	15.28	142.39	4,482.6	-729.3	561.8	920.6	0.00	0.00	0.00
4,700.0	15.28	142.39	4,579.1	-750.1	577.9	946.9	0.00	0.00	0.00
4,800.0	15.28	142.39	4,675.6	-771.0	594.0	973.3	0.00	0.00	0.00
4,900.0	15.28	142.39	4,772.0	-791.9	610.0	999.6	0.00	0.00	0.00
5,000.0	15.28	142.39	4,868.5	-812.7	626.1	1,026.0	0.00	0.00	0.00
5,100.0	15.28	142.39	4,965.0	-833.6	642.2	1,052.3	0.00	0.00	0.00
5,200.0	15.28	142.39	5,061.4	-854.5	658.3	1,078.6	0.00	0.00	0.00
									<u> </u>



# **Payzone Directional**

Planning Report



Database: Company: Project: Site: EDM 2003.21 Single User Db NEWFIELD EXPLORATION USGS Myton SW (UT) SECTION 22 T8S, R17E

 Well:
 B-27-8-17

 Wellbore:
 Wellbore #1

 Design:
 Design #1

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well B-27-8-17

B-27-8-17 @ 5184.0ft (Newfield Rig) B-27-8-17 @ 5184.0ft (Newfield Rig)

True

Minimum Curvature

nned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.0	15.28	142.39	5,157.9	-875.4	674.4	1,105.0	0.00	0.00	0.00
5,400.0	15.28	142.39	5,254.4	-896.2	690.4	1,131.3	0.00	0.00	0.00
5,500.0	15.28	142.39	5,350.8	-917.1	706.5	1,157.7	0.00	0.00	0.00
5,600.0	15.28	142.39	5,447.3	-938.0	722.6	1,184.0	0.00	0.00	0.00
5,654.6	15.28	142.39	5,500.0	-949.4	731.4	1,198.4	0.00	0.00	0.00
5,700.0	15.28	142.39	5,543.8	-958.9	738.7	1,210.4	0.00	0.00	0.00
5,800.0	15.28	142.39	5,640.2	-979.7	754.8	1,236.7	0.00	0.00	0.00
5,900.0	15.28	142.39	5,736.7	-1,000.6	770.8	1,263.1	0.00	0.00	0.00
6,000.0	15.28	142.39	5,833.1	-1,021.5	786.9	1,289.4	0.00	0.00	0.00
6,100.0	15.28	142.39	5,929.6	-1,042.3	803.0	1,315.8	0.00	0.00	0.00
6,200.0	15.28	142.39	6,026.1	-1,063.2	819.1	1,342.1	0.00	0.00	0.00
6,300.0	15.28	142.39	6,122.5	-1,084.1	835.2	1,368.5	0.00	0.00	0.00
6,400.0	15.28	142.39	6,219.0	-1,105.0	851.2	1,394.8	0.00	0.00	0.00
6,500.0	15.28	142.39	6,315.5	-1,125.8	867.3	1,421.2	0.00	0.00	0.00
6,600.0	15.28	142.39	6,411.9	-1,146.7	883.4	1,447.5	0.00	0.00	0.00
6,700.0	15.28	142.39	6,508.4	-1,167.6	899.5	1,473.9	0.00	0.00	0.00
6,800.0	15.28	142.39	6,604.9	-1,188.4	915.6	1,500.2	0.00	0.00	0.00
6,846.8	15.28	142.39	6,650.0	-1,198.2	923.1	1,512.5	0.00	0.00	0.00

API Well Number: 43013513610000 Project: USGS Myton SW (UT)



Site: SECTION 22 T8S, R17E

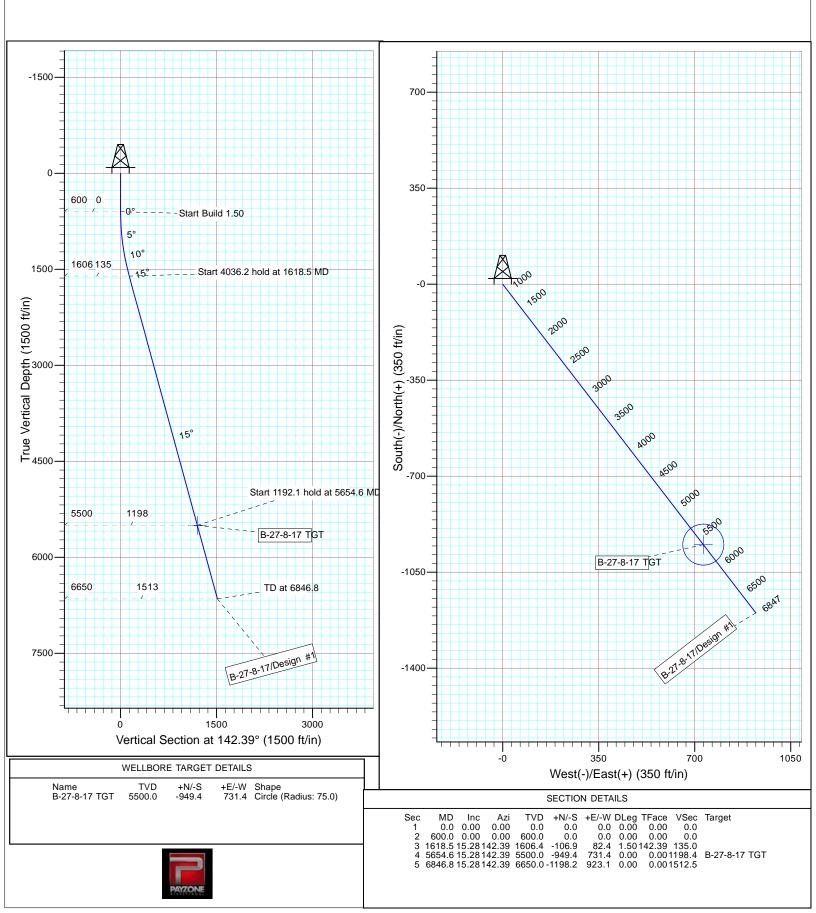
Well: B-27-8-17 Wellbore: Wellbore #1 Design: Design #1



Azimuths to True North Magnetic North: 11.22° Magnetic Field

Strength: 52257.2snT Dip Angle: 65.84° Date: 1/5/2012 Model: IGRF2010

KOP @ 600' DOGLEG RATE 1.5 DEG/100 TARGET RADIUS IS 75'



# NEWFIELD PRODUCTION COMPANY GMBU B-27-8-17 AT SURFACE: SW/SE SECTION 27, T8S R17E DUCHESNE COUNTY, UTAH

#### ONSHORE ORDER NO. 1

## MULTI-POINT SURFACE USE & OPERATIONS PLAN

#### 1. EXISTING ROADS

See attached Topographic Map "A"

To reach Newfield Production Company well location site GMBU B-27-8-17 located in the SW 1/4 SE 1/4 Section 22, T8S R17E, Duchesne County, Utah:

Proceed southwesterly out of Myton, Utah along Highway 40-1.4 miles  $\pm$  to the junction of this highway and UT State Hwy 53; proceed in a southeasterly direction -6.8 miles  $\pm$  to it's junction with an existing road to the east; ; proceed in a easterly direction -3.3 miles  $\pm$  to it's junction with an existing road to the south; ; proceed in a southeasterly direction and then a southwesterly direction -3.0 miles  $\pm$  to it's junction the beginning of the access road the existing 15-22-8-17 well location.

The aforementioned dirt oil field service roads and other roads in the vicinity are constructed out of existing native materials that are prevalent to the existing area they are located in and range from clays to a sandy-clay shale material.

The roads for access during the drilling, completion and production phase will be maintained at the standards required by the State of Utah, or other controlling agencies. This maintenance will consist of some minor grader work for smoothing road surfaces and for snow removal. Any necessary fill material for repair will be purchase and hauled from private sources.

#### 2. PLANNED ACCESS ROAD

There is no proposed access road for this location. The proposed well will be drilled directionaly off of the existing 15-22-8-17 well pad. See attached **Topographic Map "B"**.

There will be **no** culverts required along this access road. There will be barrow ditches and turnouts as needed along this road.

There are no fences encountered along this proposed road. There will be no new gates or cattle guards required.

All construction material for this access road will be borrowed material accumulated during construction of the access road.

#### 3. LOCATION OF EXISTING WELLS

Refer to Exhibit "B".

#### 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

There are no existing facilities that will be used by this well.

It is anticipated that this well will be a producing oil well.

Upon construction of a tank battery, the well pad will be surrounded by a dike of sufficient capacity to contain at minimum 110% of the largest tank volume within the facility battery.

Tank batteries will be built to State specifications.

All permanent (on site for six (6) months or longer) structures, constructed or installed (including pumping units), will be painted a flat, non-reflective, earth tone color to match one of the standard environmental colors, as determined by the Rocky Mountain Five State Interagency Committee. All facilities will be painted within six months of installation.

#### 5. LOCATION AND TYPE OF WATER SUPPLY

Newfield Production will transport water by truck from nearest water source as determined by a Newfield representative for the purpose of drilling the above mentioned well. The available water sources are as follows:

Johnson Water District Water Right: 43-10136

Maurice Harvey Pond Water Right: 47-1358

Neil Moon Pond Water Right: 43-11787

Newfield Collector Well

Water Right: 47-1817 (A30414DVA, contracted with the Duchesne County Conservancy

District).

There will be no water well drilled at this site.

#### 6. SOURCE OF CONSTRUCTION MATERIALS

All construction material for this location shall be borrowed material accumulated during construction of the location site and access road.

A mineral material application is not required for this location.

#### 7. METHODS FOR HANDLING WASTE DISPOSAL

A small reserve pit (90' x 40' x 8' deep, or less) will be constructed from native soil and clay materials. The reserve pit will receive the processed drill cutting (wet sand, shale & rock) removed from the wellbore. Any drilling fluids, which do accumulate in the pit as a result of shale-shaker carryover, cleaning of the sand trap, etc., will be promptly reclaimed. All drilling fluids will be fresh water based, typically containing Total Dissolved Solids of less than 3000 PPM. No potassium chloride, chromates, trash, debris, nor any other substance deemed hazardous will be placed in this pit. Therefore, it is proposed that no synthetic liner be required in the reserve pit. However, if upon constructing the pit there is insufficient fine clay and silt present, a liner will be used for the purpose of reducing water loss through percolation.

Newfield requests approval that a flare pit not be constructed or utilized on this location.

A portable toilet will be provided for human waste.

A trash basket will be provided for garbage (trash) and hauled away to an approved disposal site at the completion of the drilling activities.

#### 8. ANCILLARY FACILITIES

There are no ancillary facilities planned for at the present time and none foreseen in the near future.

# 9. <u>WELL SITE LAYOUT</u>

See attached Location Layout Sheet.

#### **Fencing Requirements**

All pits will be fenced according to the following minimum standards:

- a) A 39-inch net wire shall be used with at least one strand of barbed wire on top of the net.
- b) The net wire shall be no more than two (2) inches above the ground. The barbed wire shall be three (3) inches above the net wire. Total height of the fence shall be at least forty-two (42) inches.
- c) Corner posts shall be centered and/or braced in such a manner to keep tight at all times
- d) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than sixteen (16) feet.
- e) All wire shall be stretched, by using a stretching device, before it is attached to the corner posts.

The reserve pit fencing will be on three (3) sides during drilling operations and on the fourth side when the rig moves off location. Pits will be fenced and maintained until cleanup.

Existing fences to be crossed by the access road will be braced and tied off before cutting so as to prevent slacking in the wire. The opening shall be closed temporarily as necessary during construction to prevent the escape of livestock, and upon completion of construction the fence shall be repaired to BLM specifications.

#### 10. PLANS FOR RESTORATION OF SURFACE:

# a) Producing Location

Immediately upon well completion, the location and surrounding area will be cleared of all unused tubing, equipment, debris, material, trash and junk not required for production.

The reserve pit and that portion of the location not needed for production facilities/operations will be recontoured to the approximated natural contours. Weather permitting, the reserve pit will be reclaimed within one hundred twenty (120) days from the date of well completion. Before any dirt work takes place, the reserve pit must have all fluids and hydrocarbons removed.

#### b) Dry Hole Abandoned Location

At such time as the well is plugged and abandoned, the operator shall submit a subsequent report of abandonment and the State of Utah will attach the appropriate surface rehabilitation conditions of approval.

#### 11. <u>SURFACE OWNERSHIP</u> – Bureau of Land Management.

#### 12. OTHER ADDITIONAL INFORMATION

The Archaeological Resource Survey and Paleontological Resource Survey for this area are attached. State of Utah Antiquities Project Permit # U-12-MQ-0213b,p 4/3/12, prepared by

Montgomery Archaeological Consultants. Paleontological Resource Survey prepared by, Wade Miller, 11/18/11. See attached report cover pages, Exhibit "D".

#### **Surface Flow Line**

Newfield requests 1,332' of surface flow line be granted. The Surface Flow Line will consist of up to a 14" bundled pipe consisting of 2-2" poly glycol lines and 1-3" production line. For all new wells, Newfield. **Refer to Topographic Map "C"** for the proposed location of the proposed flow line. Flow lines will be tan and will be constructed using the following procedures:

<u>Clearing and Grading</u>: No clearing or grading of the ROW will be required. The centerline of the proposed route will be staked prior to installation. Flow lines shall be placed as close to existing roads as possible without interfering with normal road travel or road maintenance activities. Due to the proximity of existing facilities, no temporary use or construction/storage areas are anticipated. If necessary, temporary use or construction/storage areas will be identified on a topographic map included in the approved permit.

<u>Installation</u>: The proposed flow lines will be installed 4-6" above the ground. For portions along existing two-track and primary access roads, lengths of pipe will be strung out in the borrow ditch, welded together, and rolled or dragged into place with heavy equipment. For pipelines that are installed cross-country (not along existing or proposed roads), travel along the lines will be infrequent and for maintenance needs only. No installation activities will be performed during periods when the soil is too wet to adequately support installation equipment. If such equipment creates ruts in excess of three (3) inches deep, the soil will be deemed too wet to adequately support the equipment.

<u>Termination and Final Reclamation:</u> After abandonment of the associated production facilities, the flow lines will be cut and removed, and any incidental surface disturbance reclaimed. Reclamation procedures will follow those outlined in the Castle Peak and Eight Mile Flat Reclamation and Weed Management Plan.

#### Water Disposal

After first production, if the production water meets quality guidelines, it will be transported to the Ashley, Monument Butte, Jonah, South Wells Draw and Beluga water injection facilities by company or contract trucks. Subsequently, the produced water is injected into approved Class II wells to enhance Newfield's secondary recovery project. Water not meeting quality criteria, will be disposed at Newfield's Pariette #4 disposal well (Sec. 7, T9S R19E), Federally approved surface disposal facilities or at a State of Utah approved surface disposal facilities.

#### **Additional Surface Stipulations**

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws and regulations, Onshore Oil and Gas Orders, the approved plan of operations and any applicable Notice to Lessees. A copy of these conditions will be furnished to the field representative to ensure compliance.

#### **Details of the On-Site Inspection**

The proposed GMBU B-27-8-17 was on-sited on 3/14/12. The following were present; Corie Miller (Newfield Production), Janna Simonsen (Bureau of Land Management), Aaron Roe (Bureau of Land Management), and Suzanne Grayson (Bureau of Land Management.

#### **Hazardous Material Declaration**

Newfield Production Company guarantees that during the drilling and completion of the GMBU B-27-8-17, Newfield will not use, produce, store, transport or dispose 10,000# annually of any of the hazardous chemicals contained in the Environmental Protection Agency's consolidated list of chemicals subject to reporting under Title III Superfund Amendments and Reauthorization Act (SARA) of 1986. Newfield also guarantees that during the drilling and completion of the GMBU B-27-8-17, Newfield will use, produce, store, transport or dispose less than the threshold planning quantity (T.P.Q.) of any extremely hazardous substances as defined in 40 CFR 355.

A complete copy of the approved APD, if applicable, shall be on location during the construction of the location and drilling activities.

Newfield Production Company or a contractor employed by Newfield Production shall contact the State office at (801) 722-3417, 48 hours prior to construction activities.

# 13. <u>LESSEE'S OR OPERATOR'S REPRENSENTATIVE AND CERTIFICATION:</u>

Representative

Name: Tim Eaton

Address: Newfield Production Company

Route 3, Box 3630 Myton, UT 84052

Telephone: (435) 646-3721

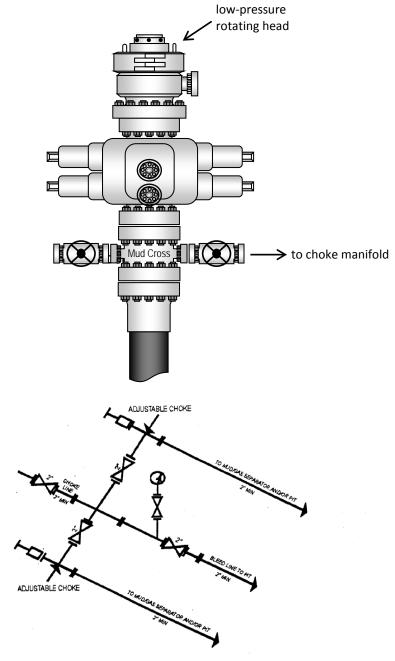
#### Certification

Please be advised that NEWFIELD PRODUCTION COMPANY is considered to be the operator of well #B-27-8-17, Section 22, Township 8S, Range 17E: Lease UTU-77233 Duchesne County, Utah: and is responsible under the terms and conditions of the lease for the operations conducted upon the leased lands. Bond coverage is provided by, Federal Bond #WYB000493.

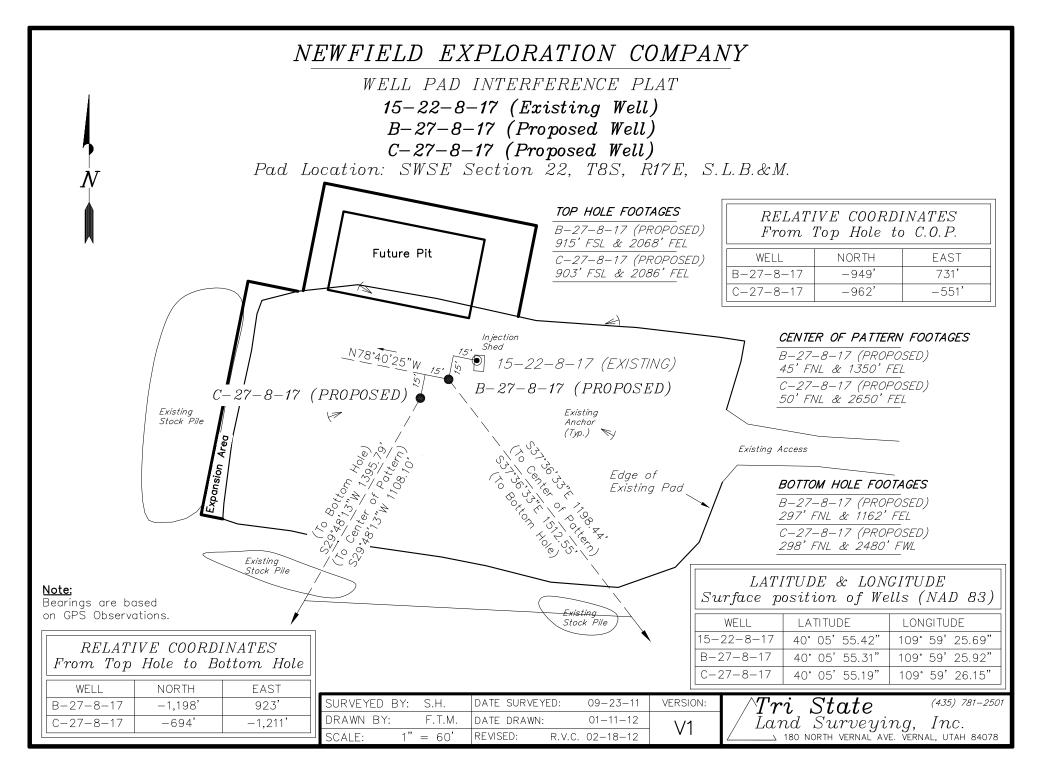
I hereby certify that the proposed drill site and access route have been inspected, and I am familiar with the conditions which currently exist; that the statements made in this plan are true and correct to the best of my knowledge; and that the work associated with the operations proposed here will be performed by Newfield Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of the 18 U.S.C. 1001 for the filing of a false statement.

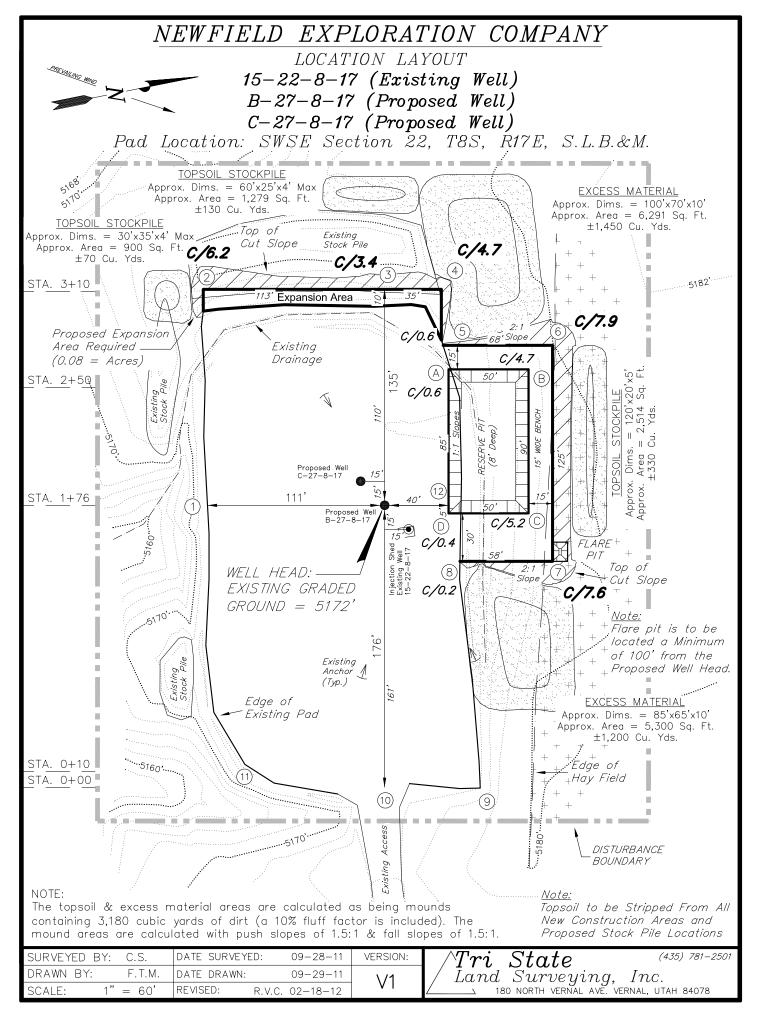
3/27/12	
Date	Mandie Crozier
	Regulatory Analyst
	Newfield Production Company

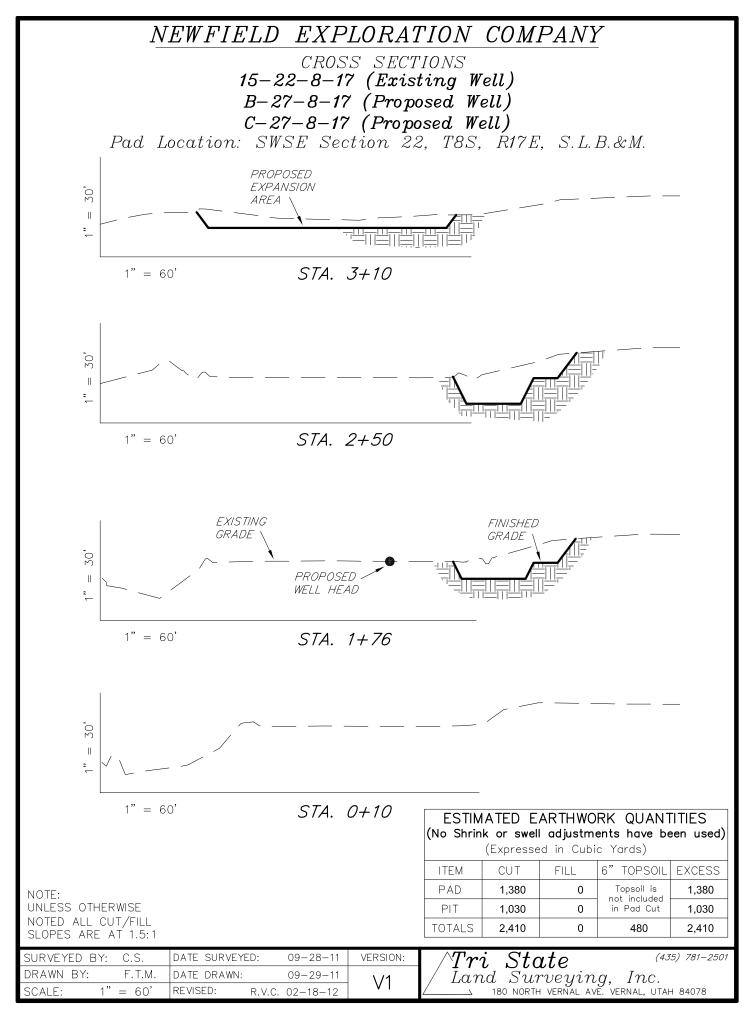
**Typical 2M BOP stack configuration** 

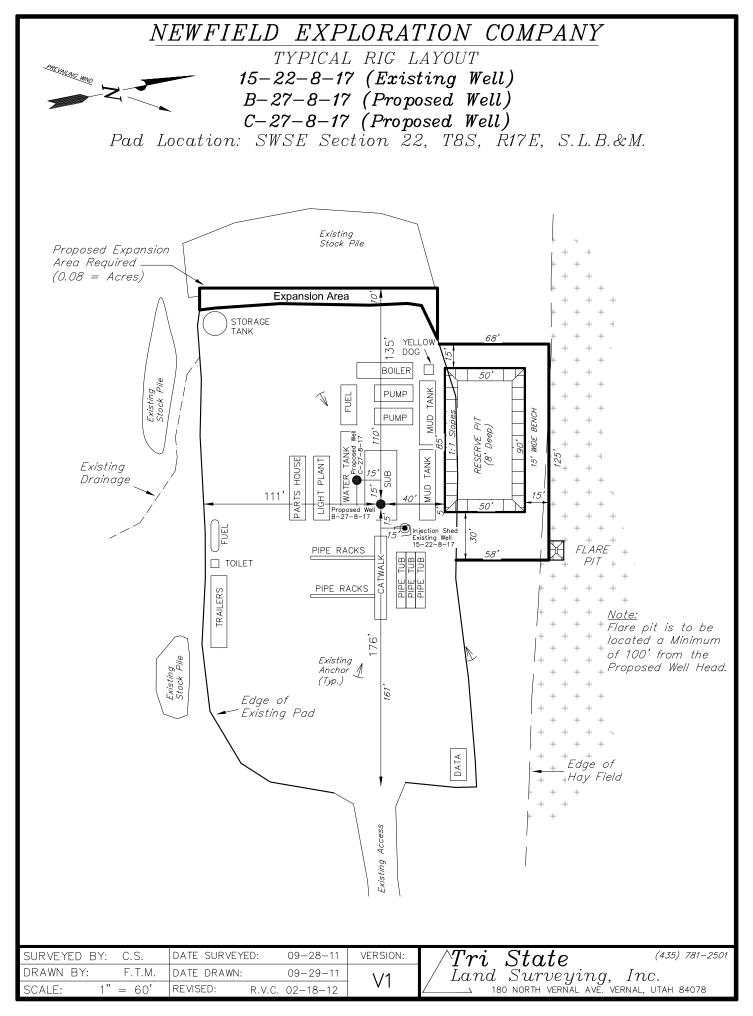


2M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY











#### VIA ELECTRONIC DELIVERY

April 5, 2012

State of Utah, Division of Oil, Gas and Mining ATTN: Diana Mason P.O. Box 145801 Salt Lake City, UT 84114-5801

RE: Directional Drilling

B-27-8-17

Greater Monument Butte (Green River) Unit

Surface Hole: T8S-R17E Section 22: SWSE (UTU-77233)

915' FSL 2068' FEL

At Target: T8S-R17E Section 27: NENE (UTU-76241)

297' FNL 1162' FEL

Duchesne County, Utah

Dear Ms. Mason:

Pursuant to the filing by Newfield Production Company (NPC) of an Application for Permit to Drill the above referenced well dated 4/4/2012, a copy of which is attached, and in accordance with Oil and Gas Conservation Rule R649-3-11, NPC hereby submits this letter as notice of our intention to directionally drill this well.

The surface hole and target locations of this well are both within the boundaries of the Greater Monument Butte Unit (UTU-87538X), of which Newfield certifies that it is the operator. Further, Newfield certifies that all lands within 460 feet of the entire directional well bore are within the Greater Monument Butte Unit.

NPC is permitting this well as a directional well in order to mitigate surface disturbance by utilizing preexiting roads and pipelines.

NPC hereby requests our application for permit to drill be granted pursuant to R649-3-11. If you have any questions or require further information, please contact the undersigned at 303-383-4121 or by email at <a href="mailto:lburget@newfield.com">lburget@newfield.com</a>. Your consideration in this matter is greatly appreciated.

Sincerely,

Newfield Production Company

Teslie Bugt

Leslie Burget Land Associate

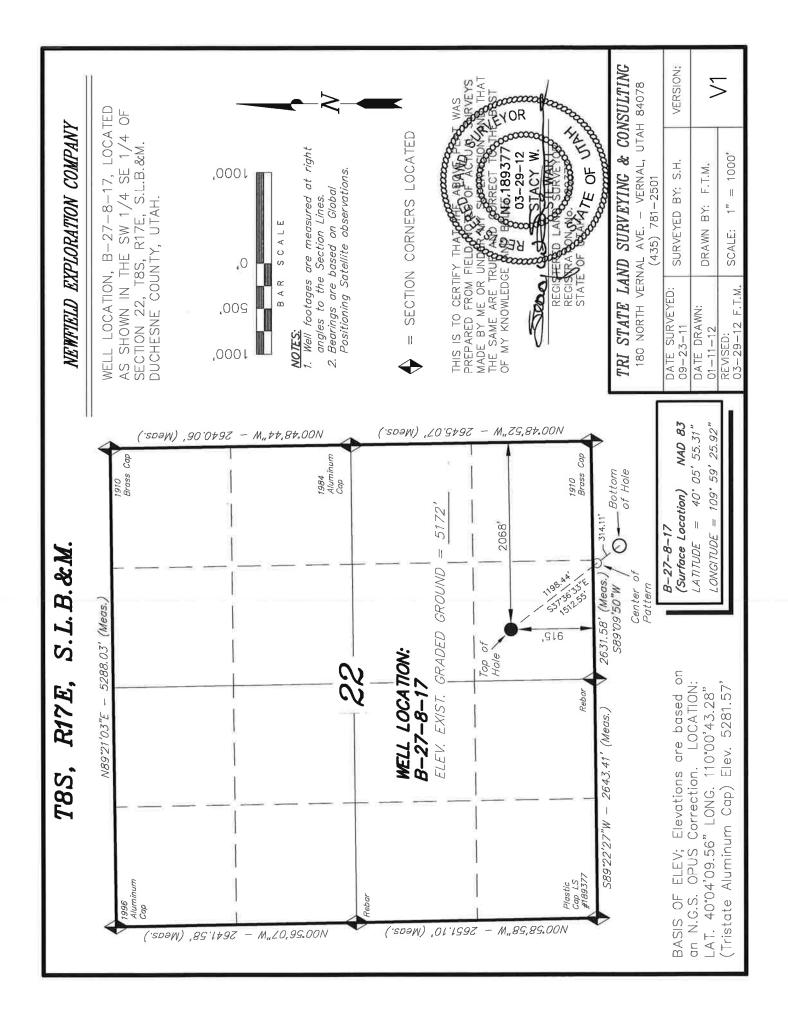
Form 3160-3 (August 2007) UNITED ST			FORM APPR OMB No. 100 Expires July 3	4-0136	
DEPARTMENT OF T BUREAU OF LAND N			5. Lease Serial No. UTU77233		
APPLICATION FOR PERMIT	O DRILL OR REI	ENTER	6. If Indian, Allottee or Tribe	Name	
1a. Type of Work: ☑ DRILL ☐ REENTER			7. If Unit or CA Agreement, GREATER MONUME	Name and No.	
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Oth	er 🛮 Single	e Zone 🔲 Multiple Zone	8. Lease Name and Well No. GMBU B-27-8-17		
Name of Operator Contact:     NEWFIELD PRODUCTION COMPANYail: mcroziei	MANDIE CROZIER @newfield.com		9. API Well No.		
3a. Address ROUTE #3 BOX 3630 MYTON, UT 84052	3b. Phone No. (include Ph: 435-646-4825) Fx: 435-646-3031		10. Field and Pool, or Explor MONUMENT BUTTE	atory	
4. Location of Well (Report location clearly and in accorda	nce with any State requir	rements.*)	11. Sec., T., R., M., or Blk. a	nd Survey or Area	
At surface SWSE 915FSL 2068FEL			Sec 22 T8S R17E Me	er SLB	
At proposed prod. zone NENE 297FNL 1162FEL					
14. Distance in miles and direction from nearest town or post of 14.5	office*		12. County or Parish DUCHESNE	13. State UT	
15. Distance from proposed location to nearest property or	16. No. of Acres in Le	ase	17. Spacing Unit dedicated to	this well	
lease line, ft. (Also to nearest drig. unit line, if any) 297'	560.00		20.00		
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth		20. BLM/BIA Bond No. on f	īle	
872'	6847 MD 6650 TVD		WYB000493		
21. Elevations (Show whether DF, KB, RT, GL, etc. 5172 GL	22. Approximate date 07/31/2012	work will start	23. Estimated duration 7 DAYS		
	24. Atta	chments			
The following, completed in accordance with the requirements o	f Onshore Oil and Gas Or	rder No. 1, shall be attached to the	nis form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Office.)</li> </ol>		<ol> <li>Bond to cover the operation Item 20 above).</li> <li>Operator certification</li> <li>Such other site specific infoauthorized officer.</li> </ol>			
25. Signature (Electronic Submission)	Name (Printed/Typed) MANDIE CROZ	IER Ph: 435-646-4825		Date 04/04/2012	
Title REGULATORY ANALYST					
Approved by (Signature)	Name (Printed/Typed)			Date	
Title	Office				
Application approval does not warrant or certify the applicant ho operations thereon.  Conditions of approval, if any, are attached.	lds legal or equitable title	e to those rights in the subject lea	ase which would entitle the app	licant to conduct	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, r States any false, fictitious or fraudulent statements or representat	nake it a crime for any pe ions as to any matter with	erson knowingly and willfully to hin its jurisdiction.	make to any department or age	ncy of the United	

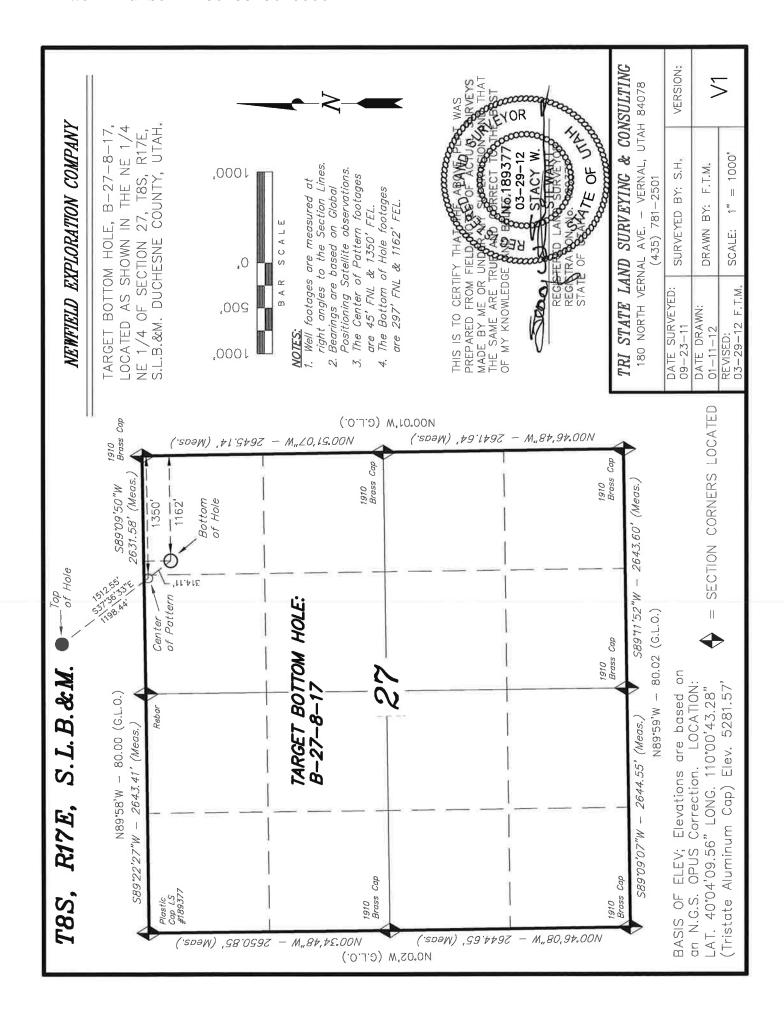
## Additional Operator Remarks (see next page)

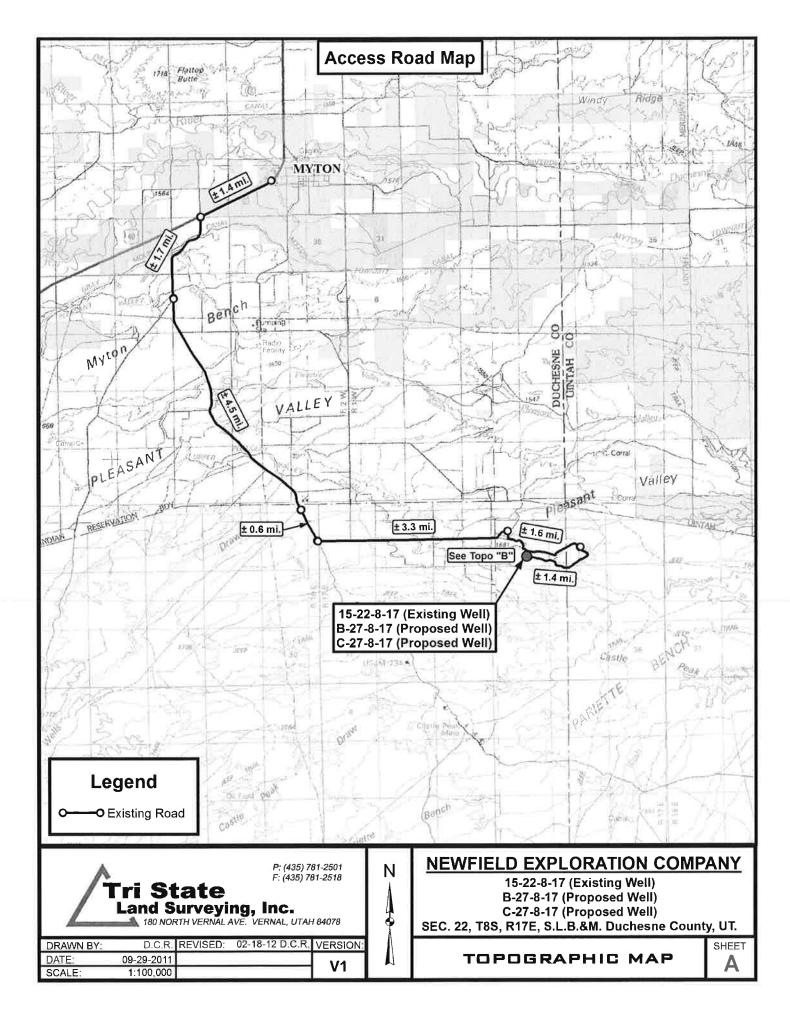
Electronic Submission #134747 verified by the BLM Well Information System For NEWFIELD PRODUCTION COMPANY, sent to the Vernal

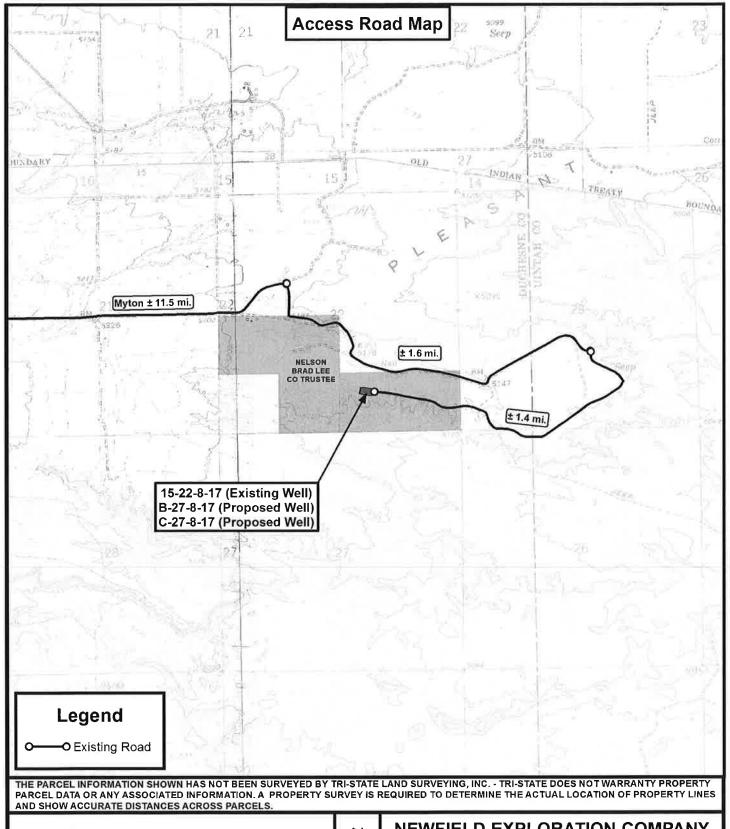
# Additional Operator Remarks:

SURFACE LEASE: UTU-77233 BOTTOM HOLE LEASE: UTU-76241











P: (435) 781-2501 F: (435) 781-2518

🛝 180 NORTH VERNAL AVE. VERNAL, UTAH 84078

DRAWN BY:	D.C.R.	REVISED:	02-18-12 D.C.R.	VERSION:
DATE:	09-29-2011			V1
SCALE:	1 " = 2,000 '			VI



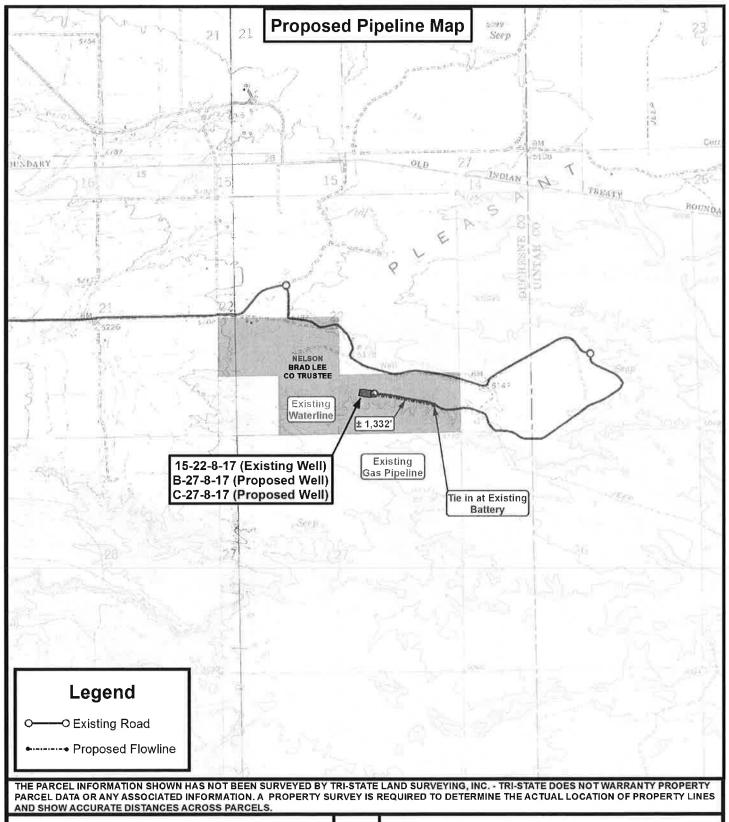
# **NEWFIELD EXPLORATION COMPANY**

15-22-8-17 (Existing Well) B-27-8-17 (Proposed Well)

C-27-8-17 (Proposed Well)

SEC. 22, T8S, R17E, S.L.B.&M. Duchesne County, UT.







P: (435) 781-2501 F: (435) 781-2518

180 NORTH VERNAL AVE. VERNAL, UTAH 84078

DRAWN BY:	D.C.R.	REVISED:	02-18-12 D.C.R.	VERSION:
DATE:	09-29-2011			1/4
SCALE:	1"= 2 000 '			VI



# **NEWFIELD EXPLORATION COMPANY**

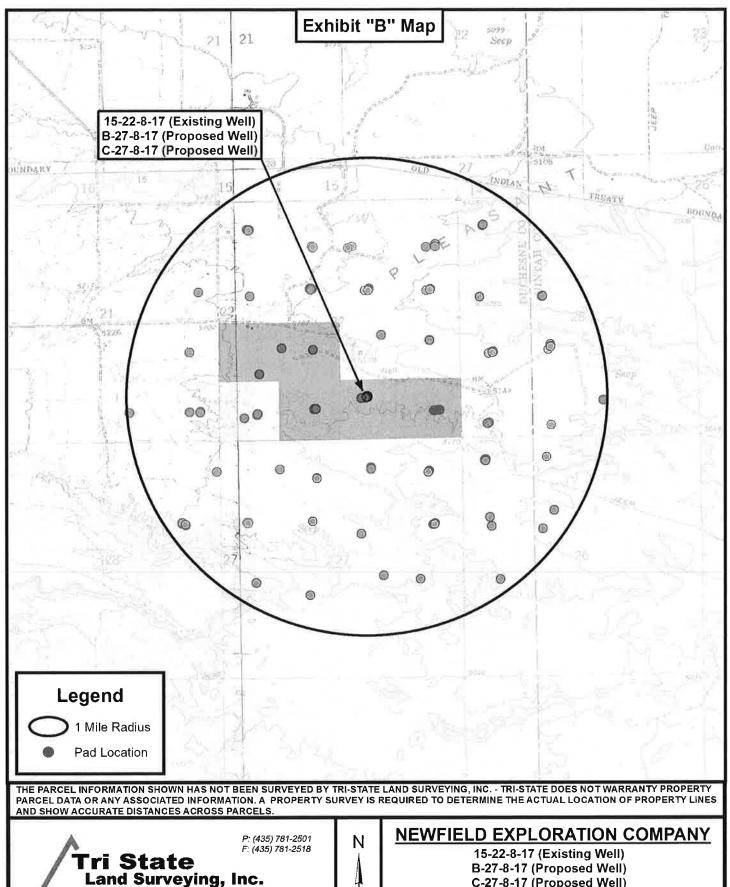
15-22-8-17 (Existing Well) B-27-8-17 (Proposed Well)

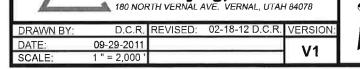
C-27-8-17 (Proposed Well)

SEC. 22, T8S, R17E, S.L.B.&M. Duchesne County, UT.

TOPOGRAPHIC MAP

SHEET

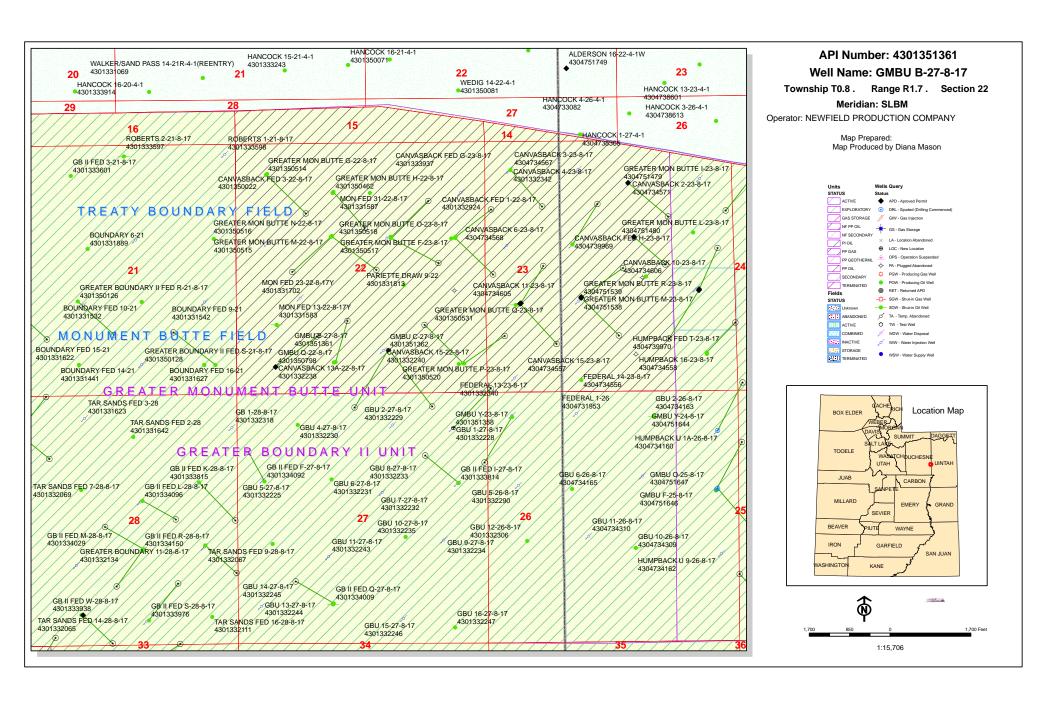




C-27-8-17 (Proposed Well)

SEC. 22, T8S, R17E, S.L.B.&M. Duchesne County, UT.





API Well Number: 43013513610000

# **United States Department of the Interior**

# BUREAU OF LAND MANAGEMENT

Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

April 6, 2012

#### Memorandum

Assistant District Manager Minerals, Vernal District To:

From: Michael Coulthard, Petroleum Engineer

2012 Plan of Development Greater Monument

Butte Unit, Duchesne and Uintah Counties,

Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Greater Monument Butte Unit, Duchesne and Uintah Counties, Utah.

API#	WELL NAME		L	OCATIO	١		
(Proposed PZ	GREEN RIVER)						
43-013-51348	GMBU E-21-9-17 BHI	Sec Sec				_	
43-013-51351	GMBU D-21-9-17 BHI	Sec Sec				_	
43-013-51354	GMBU N-34-8-16 BHI	Sec Sec					
43-013-51355	GMBU G-15-9-17 BHI	Sec Sec					
43-013-51356	GMBU H-15-9-17 BHI	Sec Sec					
43-013-51357	GMBU W-19-8-17 BHI	Sec Sec					
43-013-51358	GMBU Y-23-8-17 BHI	Sec Sec					
43-013-51359	GMBU X-20-8-17 BHI	Sec Sec					

RECEIVED: April 06, 2012

API Well Number: 43013513610000

Page 2

API# WELL NAME LOCATION

(Proposed PZ GREEN RIVER)

43-013-51360 GMBU W-20-8-17 Sec 29 T08S R17E 0600 FNL 2016 FWL BHL Sec 20 T08S R17E 0114 FSL 2414 FEL

43-013-51361 GMBU B-27-8-17 Sec 22 T08S R17E 0915 FSL 2068 FEL BHL Sec 27 T08S R17E 0297 FNL 1162 FEL

43-013-51362 GMBU C-27-8-17 Sec 22 T08S R17E 0903 FSL 2086 FEL

This office has no objection to permitting the wells at this time.

BHL Sec 27 T08S R17E 0298 FNL 2480 FWL

Michael L. Coulthard

Digitally signed by Michael L. Coulthard, o-Bureau of Land Management, ou-Biranch of Minerals, email-shichael\_Coulthard@blm.gov, c=US Date: 2012.04.061 12:4001-06000

bcc: File - Greater Monument Butte Unit
 Division of Oil Gas and Mining
 Central Files
 Agr. Sec. Chron
 Fluid Chron

MCoulthard:mc:4-6-12

API Well Number: 43013513610000

# WORKSHEET APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 4/4/2012 **API NO. ASSIGNED:** 43013513610000

WELL NAME: GMBU B-27-8-17

OPERATOR: NEWFIELD PRODUCTION COMPANY (N2695) PHONE NUMBER: 435 646-4825

**CONTACT:** Mandie Crozier

PROPOSED LOCATION: SWSE 22 080S 170E Permit Tech Review:

SURFACE: 0915 FSL 2068 FEL Engineering Review:

BOTTOM: 0297 FNL 1162 FEL Geology Review: 

✓

**COUNTY: DUCHESNE** 

LATITUDE: 40.09869 LONGITUDE: -109.99050

**UTM SURF EASTINGS:** 586047.00 **NORTHINGS:** 4439200.00

FIELD NAME: MONUMENT BUTTE

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-77233 PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 1 - Federal COALBED METHANE: NO

**RECEIVED AND/OR REVIEWED: LOCATION AND SITING:** ✓ PLAT R649-2-3. Unit: GMBU (GRRV) Bond: FEDERAL - WYB000493 **Potash** R649-3-2. General Oil Shale 190-5 Oil Shale 190-3 R649-3-3. Exception Oil Shale 190-13 **Drilling Unit** Board Cause No: Cause 213-11 Water Permit: 437478 Effective Date: 11/30/2009 **RDCC Review:** Siting: Suspends General Siting Fee Surface Agreement

Intent to Commingle R649-3-11. Directional Drill

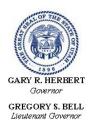
Commingling Approved

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason

15 - Directional - dmason

27 - Other - bhill



# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

# Permit To Drill

\*\*\*\*\*\*

**Well Name:** GMBU B-27-8-17 **API Well Number:** 43013513610000

Lease Number: UTU-77233 Surface Owner: FEDERAL Approval Date: 4/10/2012

#### Issued to:

NEWFIELD PRODUCTION COMPANY, Rt 3 Box 3630, Myton, UT 84052

## Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 213-11. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

#### **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

# **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Production casing cement shall be brought up to or above the top of the unitized interval for the Greater Monument Butte Unit (Cause No. 213-11).

## **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available) OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

# Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
  - Requests to Change Plans (Form 9) due prior to implementation
  - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
  - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Form 3160-3 (August 2007)

# DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANY **BUREAU OF LAND MANAGEMENT**

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

ADDITION FOR DEDMIT TO DOLL OR DE

Lease Serial No. UTU77233

AFFLICATION FOR FERIMIT	TO DRILL OR REENTER	o. ii ilidiali, Allottee ol 1110	e maine
1a. Type of Work: DRILL REENTER		7. If Unit or CA Agreement, GREATER MONUMI	
1b. Type of Well: ⊠ Oil Well ☐ Gas Well ☐ Ot		8. Lease Name and Well No GMBU B-27-8-17	
NEWFIELD PRODUCTION COMPANNAIL mcrozie	MANDIE CROZIER er@newfield.com	9. API Well No. 43-013-6	1361
3a. Address ROUTE #3 BOX 3630 MYTON, UT 84052	3b. Phone No. (include area code) Ph: 435-646-4825 Fx: 435-646-3031	10. Field and Pool, or Explo MONUMENT BUTTE	ratory
4. Location of Well (Report location clearly and in accord	ance with any State requirements.*)	11. Sec., T., R., M., or Blk.	and Survey or Area
At surface SWSE 915FSL 2068FEL		Sec 22 T8S R17E M	er SLB
At proposed prod. zone NENE 297FNL 1162FEL	20121	}	
14. Distance in miles and direction from nearest town or post 14.5	office*	12. County or Parish DUCHESNE	13. State UT
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any)	16. No. of Acres in Lease	17. Spacing Unit dedicated t	o this well
297'	560.00	20.00	
18. Distance from proposed location to nearest well, drilling,	19. Proposed Depth	20. BLM/BIA Bond No. on i	file
completed, applied for, on this lease, ft. 872'	6847 MD 6650 TVD	20. BLM/BIA Bond No. on a WYB000493  23. Estimated duration 7 DAYS  this form:	
21. Elevations (Show whether DF, KB, RT, GL, etc. 5172 GL	22. Approximate date work will start 07/31/2012	23. Estimated duration 7 DAYS	Elle
	24. Attachments	Own 2	ED
The following, completed in accordance with the requirements of	f Onshore Oil and Gas Order No. 1, shall be attached to	this form:	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Off</li> </ol>	em Lands, the 5. Operator certification	this form: ons unless covered by an exist of the formation and/or plans as may be	bond on file (see
25. Signature (Electronic Submission)	Name (Printed/Typed) MANDIE CROZIER Ph: 435-646-4825		Date 04/04/2012
Title REGULATORY ANALYST			
Approved by (Signature)	Name (Printed/Typed)  Jerry Kenczka		NOV 1 6 2012
Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFI	-	
Application approval does not warrant or certify the applicant ho	lds legal or equitable title to those rights in the subject le	ase which would entitle the app	licant to conduct

operations thereon. Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Electronic Submission #134747 verified by the BLM Well Information System NOTICE OF APPROVAL For NEWFIELD PRODUCTION COMPANY, sent to the Vernal committed to AFMSS for processing by LESLIE ROBINSON on 04/11/2012 ()



**CONDITIONS OF APPROVAL ATTACHED** 



# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT **VERNAL FIELD OFFICE** 170 South 500 East

**VERNAL. UT 84078** 

(435) 781-4400



## CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

**Newfield Production Company** 

GMBU B-27-8-17

API No: 43-013-51361 Location: Lease No: SWSW, Sec. 14, T10S, R22E

UTU-77233

Agreement:

**GREATER MONUMENT BUTTE** 

**OFFICE NUMBER:** 

(435) 781-4400

OFFICE FAX NUMBER:

(435) 781-3420

# A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

## NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to:  blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

Page 2 of 7 Well: GMBU B-27-8-17 10/29/2012

# SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
  work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
  mitigation may be necessary for the discovered paleontologic material before construction can
  continue.

# For protection of T&E Fish if drawing water from the Green River

- For areas of fresh water collection, an infiltration gallery will be constructed in a Service approved location. An infiltration gallery is basically a pit or trench dug within the floodplain to a depth below the water table. Water is drawn from the pit rather than from the river directly. If this is not possible, limit pumping within the river to off-channel locations that do not connect to the river during high spring flows.
- If water cannot be drawn using the measures above and the pump head will be located in the river channel where larval fish are known to occur, the following measures apply:
  - Avoid pumping from low-flow or no-flow areas as these habitats tend to concentrate larval fished
  - Avoid pumping to the greatest extent possible, during that period of the year when larval fish may be present (see previous bullet); and
  - Avoid pumping, to the greatest extent possible, during the midnight hours (10:00 p.m. to 2:00 a.m.) as larval drift studies indicate that this is a period of greatest daily activity. Dusk is the preferred pumping time, as larval drift abundance is lowest during this time.
  - Screen all pump intakes with 3/32-inch mesh material.
- Report any fish impinged on the intake screen to the FWS office (801.975.3330) and the:
   Utah Division of Wildlife Resources
   Northeastern Region
   152 East 100 North
   Vernal, UT 84078
   (435) 781-9453

### **Air Quality**

- All internal combustion equipment will be kept in good working order.
- Water or other approved dust suppressants will be used at construction sites and along roads, as determined appropriate by the Authorized Officer. Dust suppressant such as magnesium chloride or fresh water may be used, as needed, during the drilling phase.
- Open burning of garbage or refuse will not occur at well sites or other facilities.

Page 3 of 7 Well: GMBU B-27-8-17 10/29/2012

- Drill rigs will be equipped with Tier II or better diesel engines.
- Low bleed pneumatics will be installed on separator dump valves and other controllers.
- During completion, no venting will occur, and flaring will be limited as much as possible. Production equipment and gathering lines will be installed as soon as possible.
- Telemetry will be installed to remotely monitor and control production.
- Signs will be installed on the access road, reducing speed to 25 MPH, during the drilling phase.
- When feasible, two or more rigs (including drilling and completion rigs) will not be run simultaneously within 200 meters of each other. If two or more rigs must be run simultaneously within 200 meters of each other, then effective public health buffer zones out to 200 meters (m) from the nearest emission source will be implemented. Examples of an effective public health protection buffer zone include the demarcation of a public access exclusion zone by signage at intervals of every 250 feet that is visible from a distance of 125 feet during daylight hours, and a physical buffer such as active surveillance to ensure the property is not accessible by the public during drilling operations. Alternatively, the proponent may demonstrate compliance with the 1-hour NO<sub>2</sub> National Ambient Air Quality Standards (NAAQS) with appropriate and accepted near-field modeling. As part of this demonstration, the proponent may propose alternative mitigation that could include but is not limited to natural gas—fired drill rigs, installation of NO<sub>X</sub> controls, time/use restrictions, and/or drill rig spacing.
- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horse power must not emit more than 2 grams of NO<sub>X</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 grams of NO<sub>X</sub> per horsepower-hour.
- Green completions would be used for all well completion activities where technically feasible.
- Employ enhanced VOC emission controls with 95% control efficiency on production equipment having a potential to emit greater than 5 tons per year.

Page 4 of 7 Well: GMBU B-27-8-17 10/29/2012

# DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

 Newfield Production Co. shall adhere to all referenced requirements in the SOP (version: "Greater Monument Butte Green River Development Program", Feb 16, 2012). The operator shall also comply with applicable laws and regulations; with lease terms Onshore Oil and Gas Orders, NTL's; and with other orders and instructions of the, authorized officer.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

## DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
  encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
  Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB

Page 5 of 7 Well: GMBU B-27-8-17 10/29/2012

or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.

- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to BLM\_UT\_VN\_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 6 of 7 Well: GMBU B-27-8-17

10/29/2012

#### **OPERATING REQUIREMENT REMINDERS:**

• All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.

- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <a href="https://www.ONRR.gov">www.ONRR.gov</a>.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written communication
  and must be received in this office by not later than the fifth business day following the date on
  which the well is placed on production. The notification shall provide, as a minimum, the following
  informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - o The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - Unit agreement and/or participating area name and number, if applicable.
  - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid,

Page 7 of 7 Well: GMBU B-27-8-17

10/29/2012

and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

• All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.

- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
  Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
  future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
  BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
  hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
  be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
  suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
  obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval
  of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

# BLM - Vernal Field Office - Notification Form

Operator Newfield Exploration Rig Name/# Ross Rig # 29 Submitted By Xabier Lasa Phone Number 823-6014 Well Name/Number GMBU B-27-8-17 Qtr/Qtr SW/SE Section 22 Township 8S Range 17E Lease Serial Number UTU-77233 API Number 43-013-51361
<u>Spud Notice</u> – Spud is the initial spudding of the well, not drilling out below a casing string.
Date/Time <u>12-28-12</u> <u>9:00</u> AM ⊠ PM ☐
<ul> <li>Casing − Please report time casing run starts, not cementing times.</li> <li>Surface Casing</li> <li>Intermediate Casing</li> <li>Production Casing</li> <li>Liner</li> <li>Other</li> </ul>
Date/Time <u>12-28-12</u> <u>3:00</u> AM ☐ PM ⊠
BOPE Initial BOPE test at surface casing point BOPE test at intermediate casing point 30 day BOPE test Other
Date/Time AM PM
Remarks

OPERATOR: NEWFIELD PRODUCTION COMPANY

ADDRESS: RT. 3 BOX 3630

MYTON, UT 84052

OPERATOR ACCT. NO. N2695

ACTION	CURRENT	NEW	API NUMBER	WELL NAME		1415	LL LOCAT	l/NA1		EDUD.	EFFECTIVE
CODE	ENTITY NO	ENTITY NO.	PATITUMBER	LIEFF WAME	00	sc	TP TP	RG	COUNTY	SPUD DATE	DATE
В	99999	17400	4301351361	GMBU B-27-8-17	SWSE	23	85	17E	DUCHESNE	12/28/2012	1.14
LL 1 CO	GRRV	RH	i Dana C	<b>↑</b> -7					š l		
TION	CURRENT	NEW	12 here S	WELL NAME	1	1	LL LOCAT			0010	EFFECTIVE
ODE	ENTITY NO	ENTITY NO	APTNUMBER	MET LYWE	QQ	sc	TP	RG	COUNTY	SPUD DATE	DATE
В	99999	17400	4301351362	GMBU C-27-8-17		39	85	17E	DUCHESNE	12/29/2012	1.14.1
<u></u>	ärrv B	5H 2-: N	2nw 527		-						
TION	CURRENT	NEW	API NUMBER	WELL NAME		WE	LL LOCAT	ON		SPUD	EFFECTIVE
В	ENTITY NO	ENTITY NO.			90	sc	ŢΡ	RG	COUNTY	DATE	
В	99999	17400	4301351476	GMBU S-9-9-17	SESE	9	98	17E	DUCHESNE	12/22/2012	1-14.
C	RRV F	3HL: r	nuse						<del> </del>		
INOIT:	CURRENT	NEW !	API NUMBER	WELL NAME		WE	LL LOCATE	ON	1	SPUD	EFFECTIVE
CODE	ENTITY NO	ENTITY NO	101111111111111111111111111111111111111	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	QQ	sc	TP	RG	COUNTY	DATE	DATE
В	99999	17400	4301351484	GMBU L-9-9-17	NWSE	9	98	17E	DUCHESNE	12/27/2012	1-14
	ARRY F	٠ ١ ١ ١	0.00	<u></u>							<del>1 · · · · · · · · · · · · · · · · · · ·</del>
CTION	CURRENT	3HL: S	APINUMBER	WELL NAME		WE	LLLOCATI	ON		SPUD	EFFECTIVE
ODE	ENTITY NO	ENTITY NO	,		00	sc	TP	RG	COUNTY	DATE	DATE
В	99999	17400	4301351480	GMBU T-5-9-17	NWSW	4	98	17E	DUCHESNE	1/4/2013	1-124
	-			,							
C	RRV P	SHL: 54	25e S5							-	-
	RRV B	HL: ST	PSE S5	WELL NAME		WE	LL LOCATI	ON		SPUD	EFFECTIVE
CTION				WELL NAME	- 00	WE:	LL LOCATI	ON RG	COUNTY	SPLID DATE	EFFECTIVE DATE
ODE	CURRENT	NEW		WELL NAME  GMBU Q-4-9-17	∞ NWSW	_			country  DUCHESNE	= -	1
B	CURRENT ENTITY NO 99999	NEW ENTITY NO 17400	артимвек 4301351046			sc	TP	RG		DATE	DATE
B	CURRENT ENTITY NO 99999	NEW ENTITY NO 17400	API NUMBER			sc 4	TP	17E		DATE	DATE
B C	CURRENT ENTITY NO 99999	17400	4301351046	GMBU Q-4-9-17		sc 4	9S	17E		1/3/2013	DATE \\ \^\\\\-\\\\\\\\\\\\\\\\\\\\\\\\\\\\
CTION CODE B	CURRENT ENTITY NO  99999  RRV BY CURRENT	17400	4301351046	GMBU Q-4-9-17	NWSW	sc 4	9S	17E	DUCHESNE	1/3/2013 SPUD	DATE    `\L\-
B CTION CODE	CURRENT ENTITY NO  99999  RRV BY CURRENT	NEW ENTITY NO 17400	API NUMBER  4301351046  PORTON API NUMBER	GMBU Q-4-9-17	NWSW	sc 4	9S	17E	DUCHESNE	1/3/2013  SPUD DATE	DATE    `\_\_`  EFFECTIVE DATE

NOTE: Use COMMENT section to explain why each Action Code was selected.

JAN 1 4 2013

Div. of Cii. Gas & Mining

FORM 3160-5 (August 2007)

# **UNITED STATES** DEPARTMENT OF THE INTERIOR

FORM APPROVED OMB No. 1004-0137

,	DUDEAU OF LANDAGA		Expires: July 31,2010
011100	BUREAU OF LAND MAN		5. Lease Serial No.
	Y NOTICES AND REP		USA UTU-77233
DO NOT USE	this form for proposals	to drill or to re-enter an APD) for such proposals.	6. If Indian, Allottee or Tribe Name.
abandonea v	ven. Ose i Oilli S 100-5 ()		
SUBMIT II	N TRIPLICATE - Other	r Instructions on page 2	7. If Unit or CA/Agreement, Name and/or
		. 0	
. Type of Well			GMBU
X Oil Well Gas Well	Other		8. Well Name and No.
. Name of Operator			GMBU B-27-8-17
NEWFIELD PRODUCTION C	OMPANY		9. API Well No.
a. Address Route 3 Box 3630		3b. Phone (include are code)	4301351361
Myton, UT 84052		435.646.3721	10. Field and Pool, or Exploratory Area
Location of Well (Footage,	Sec., T., R., M., or Survey Des	cription)	GREATER MB UNIT
32			11. County or Parish, State
Section 27 T8S R17E			DUCHESNE, UT
12 CHEC	K APPROPRIATE BOY	(ES) TO INIDICATE NATURE O	
12. CHEC	T AFFROFRIATE BOX	(ES) TO INIDICATE NATURE O	F NOTICE, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACT	ION
_	☐ Acidize	Deepen Depon	Justion (Start/Pogumo) Water Start Off
Notice of Intent	Actidize  Alter Casing		luction (Start/Resume) Water Shut-Off lamation Well Integrity
. De la company Borne	Casing Repair		
Subsequent Report	l <del></del>		omplete
Final Abandonment	Change Plans		porarily Abandon Spud Notice
	Convert to Injector	Plug Back	er Disposal
On 12/28/12 MIRU Ross Set @ 323.87. On 1/2/1 yield. Returned 7 barrel	3 cement with 160 sks of	.M. Drill 335' of 12 1/4" hole with air class "G" w/ 2% CaCL2 + 0.25#/sk	mist. TIH W/ 7 Jt's 8 5/8" J-55 24# csgn. Cello- Flake Mixed @ 15.8ppg w/ 1.17ft3/sk
			RECEIVED
			JAN 1 6 2013
			IAN 1 6 ZUIS
			e Marian
			DIV. OF OIL, GAS & MINING
			DIA'OL CITA
haraby cortifue that the foregoing	is two and	lau.	
hereby certify that the foregoing orrect (Printed/ Typed)	is use and	Title	
Branden Arnold			
ionature	1 ,	Date	
Bod F	as	01/07/2013	
		FOR FEDERAL OR STATE OF	FICE USE
			ĺ

which would entitle the applicant to conduct operations thereon. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious and fraudulent statements or representations as to any matter within its jurisdiction

Office

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease

# Casing / Liner Detail

Well	GMBU E	3-27-8-1	7							
Prospect	Monume	nt Butte	<b>9</b>	Prof - Some manage account	egic Canad Anny C. J. 1981 No. 1981 No.	Angelia de la como del como que se o que como en que en entre en entre en entre en entre en entre en entre entre en entre entr	er promoting a committee of a second of a second of	NOTE: THE STREET MAN AND DESIGNATION OF THE PROPERTY OF THE PR		
Foreman	A realized from a state of the particular of the	returning to the continue of the second	to Win and the Walanda and an area.	The read of a state of the	to an facility, year the months of the second secon	enter hande anderen ar en est au part der hand springer participation in a side and hand and a service and de-	ned finite indication when a submission	er (august 14), el <b>d'anneus (ay gap</b> e august e		
Prim Data										
Run Date:	Freihalther Marinari Mespekhas dizileksisches	Marian Marian San Carlo Carrier Service	Colonia Colonia de Col							
String Type	Surface,	8.625",	24#, 、			The second secon	STATEMENT - ESSANDERSENGEN SAMEL DE MANAGEMENT	edderodd (* 15 odd and gar gymyr gyn		
	THE REAL PROPERTY AND THE PERSON OF	alle alle committee any any five as yet you had	Вол Нос II и умесь до — горонов.	P. a No. 44. Beelle (Marie and and	, MM et land som Medical Artist of Source	il From Top	To Bott	om -		
Depth	Lengti	h J	TS				Descriptio	n	OD	ID
										L
323.87				10' KB			· · · · · · · · · · · · · · · · · · ·	3.00	1	
10.00	1.42		1	Wellhea	ad		······································			
11.42	266.30	,	6	8 5/8 C	asing		· · · · · · · · · · · · · · · · · · ·		8.625	
277.72	45.25		8.625							
322.97	0.90		1	Guide S	Shoe					
323.87				•		· · · · · · · · · · · · · · · · · · ·	<del></del>		1	
	TO THE REPORT OF MANAGEMENT STREET					Cement De	etail			
ment Compa	ny: BJ									
		ght (ppg) 15.8	Yield 1.17	1 h	ıme (ft³) 187.2	class G+2%kcl		scription - Slurry Class and Additive	<b>es</b>	
	************	of Principle in Physics Commerce	angettington open at high care on the							
ab-In-Job?			No					Cement To Surface?	Yes	3
IT: tial Circulation	Droonures		0					Est. Top of Cement:	0	
tial Circulation								Plugs Bumped? Pressure Plugs Bumped:	Yes	
al Circulation	tion of the or management of the contract of	en emanuscular construction (American)	programme and the second secon					Floats Holding?	107 No	
al Circulation	- Marriage of Committee and a larger science of							Casing Stuck On / Off Bottom?	No	
splacement Flu			Water					Casing Stuck On 7 On Bottom?  Casing Reciprocated?	No	
splacement Ra								Casing Recipiocated?	No	
splacement Vo			17					CIP:	11:1	
id Returns:								Casing Wt Prior To Cement:	11.5	
ntralizer Type	And Placem	ent <sup>.</sup>						Casing Weight Set On Slips:		- jandas virgininas sir praesas pain - valgorinas sirin
ddle of first, to	behalve or more a some respective to more processes.		for a tot	al of the	ee.		and to see - an instrument and a second	cacing Troight Oct On Onps.		anteriorista de la monta de la companya della companya de la companya de la companya della compa

Sundry Number: 36361 API Well Number: 43013513610000

	STATE OF UTAH			FORM 9
ι	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU-77233
SUNDR	Y NOTICES AND REPORTS	S ON WE	LLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.	ly deepen e zontal latera	existing wells below als. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: GMBU (GRRV)
1. TYPE OF WELL Oil Well				8. WELL NAME and NUMBER: GMBU B-27-8-17
2. NAME OF OPERATOR: NEWFIELD PRODUCTION CO	DMPANY			<b>9. API NUMBER:</b> 43013513610000
3. ADDRESS OF OPERATOR: Rt 3 Box 3630 , Myton, UT,	, 84052 435 646-482	PHONE N	UMBER:	9. FIELD and POOL or WILDCAT: MONUMENT BUTTE
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0915 FSL 2068 FEL				COUNTY: DUCHESNE
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 22 Township: 08.0S Range: 17.0E Meri	ridian: S		STATE: UTAH
11. CHECK	K APPROPRIATE BOXES TO INDICA	ATE NATU	RE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION	
	ACIDIZE	ALTER	CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANG	E TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	Сомми	NGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTU	JRE TREAT	☐ NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG A	ND ABANDON	PLUG BACK
SPUD REPORT	✓ PRODUCTION START OR RESUME	RECLA	MATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRA	ACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	☐ VENT O	R FLARE	WATER DISPOSAL
✓ DRILLING REPORT Report Date:	WATER SHUTOFF	☐ SITA S	FATUS EXTENSION	APD EXTENSION
2/22/2013	WILDCAT WELL DETERMINATION	OTHER		
				OTHER:
The above well w	completed operations. Clearly show as placed on production o luction Start sundry re-sen	on 02/22	/2013 at 12:30	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY April 04, 2013
NAME (PLEASE PRINT) Jennifer Peatross	<b>PHONE NUM</b> 435 646-4885		<b>LE</b> oduction Technician	
SIGNATURE N/A		DA <sup>*</sup>	TE 4/2013	

Form 3160-4 (August 2007)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0137 Expires: July 31, 2010

5. Lease Serial No.

WEI	1	COMPI	ETION	OR	RECOMPL	FTION	PEPORT	ANDIC	21
AA ET	. 🗕	COMPL		UIN	VECOMIL F		REPURI	AIVU L	,,

								_						UTL	J-7723	3		
la. Type of to			il Well ew Well		as Well ork Over	Dry Deepen	Other Plug		☐ Diff	Resvr.,	,			6. If	Indian,	Allottee or	ribe Nan	ne
		Ot	her:			•					,			GMI	BU (GF			and No.
2. Name of ONEWFIELD	Operator DEXPLOF	RATION	OMF	PANY										GMI	3U B-2	me and Well 7-8-17	No.	···
3. Address	1401 17TH S	T. SUITE	1000 DE	NVER, C	O 80202				Phone N 35) 646		lude are	ea code)			FI Well 113-51:			
						dance with Feder	ral requ							10.	Field an	d Pool or Ex NT BUTTE		,
At surface	<sup>e</sup> 915' FSI	L & 206	8' FEL	(SW/SI	E) SEC.	22, T8S, R17I	E (UTL	J-7723:	3)						Sec., T., Survey o	R., M., on E	Block and . 22, T8S, I	
At top pro	d. interval r	eported	below 2	5' FSL	& 1381'	FEL (SW/SE)	SEC.	22, T8,	, R17E	(UTU-7	77233	)		12.	County	or Parish		State
At total de	pui	FNL & 1				C. 27, T8S, R <sup>2</sup>	17E (U								CHESN		UT	
<ol> <li>Date Sp</li> <li>12/28/201</li> </ol>	2		01	Date T. /25/201					ate Comp D & A	oleted (	02/22/2 Ready t	2013 to Prod.				ns (DF, RK 518 <b>2' KB</b>	B, RT, G	L)*
18. Total De		7041 D 6838			19. Pl	ug Back T.D.:		3992' 3790			20. D	epth Bri	dge Plu		MD TVD			
21. Type EI DUAL IND	lectric & Oth	er Mech	anical Lo			py of each) EUTRON,GR				ND	/ v	Was well Was DST	run?	N 🔼	· 🗖	Yes (Submi	t report)	)
23. Casing	and Liner R	ecord (	Report a	ll strings	s set in we	·II)					<u> </u>	Direction	ai Survey	// IN	0 1/	Yes (Submi	і сору)	
Hole Size	Size/Gra	ide V	Wt. (#/ft.)	To	op (MD)	Bottom (MI	) <sup>S</sup>	Stage Cer Dept			of Sks of Cer		Slurry (Bl		Cem	ent Top*	Aı	mount Pulled
12-1/4"	8-5/8" J-		24#	0		324'				<del> </del>	LASS							- 14-41-31-31
7-7/8"	5-1/2" J-	55   1	5.5#	0		7037'				_	RIML				202'			
										4/55	0/50 F	702						
24. Tubing	Pagard																	
Size		Set (MD)	) Pac	ker Depti	h (MD)	Size	Ď	epth Set	(MD)	Packer	Depth	(MD)	Si	ze	Dep	th Set (MD)	Pac	cker Depth (MD)
2-7/8"		6391'	TA @	6292'														
25. Produci	ng Intervals Formation			T	ор	Bottom	26.		foration lorated In			1 9	ize	l No.	Holes	1	Perf. S	Statue
A) Green I		11	1	5291' N	•	6305' MD	52	91-630		ici vai		0.34"	12.0	51	10103		1 611. 1	natus
B)																		
C)																		*******
<del>D)</del>																		
27. Acid, Fr			Cement S	Squeeze,	etc.												RF(	FIVED
5291-6305	Depth Inter	val		Fron w/	102200-	#s 20/40 white	cond	in 171				ype of M		2000				
3291-0300	טועו כ		ı	Tac wi	193200	#5 20/40 Wille	Sariu	111 17 17	7 DDIS C	n Ligitu	mig i	7 IIulu,	111 3 50	ages.			APR	1 1 2013
			+													DIV	OF OIL	, GAS & MINING
28. Product					I	Т-			1									
Produced	Test Date	Hours Tested	Test Prod		Oil BBL	Gas MCF	Water BBL		Oil Gra Corr. A	-	Ga Gr	as ravity		luction N		20' x 21' x :	2/! DHA	AC Primo
2/22/13 Choke	3/4/13 Tbg. Press.	24 Csa	24 H	<u> </u>	74 Oil	0 Gas	33 Water		Gas/Oil		737	ell Statu		114 A I-			47 NIF	- unp
Size	Flwg. SI	Press.	Rate		BBL	MCF	BBL		Ratio			RODU						
28a. Produc	tion - Inter	val B			I	1	<u> </u>		L				· · · · · · · · · · · · · · · · · · ·					
Date First Produced	Test Date	Hours Tested	Test Prod		Oil BBL	Gas MCF	Water BBL		Oil Gra Corr. A		Ga Ga	as ravity	Pro	duction N	/lethod			
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 H Rate		Oil BBL	Gas MCF	Water BBL		Gas/Oil Ratio		W	ell Statu	is					
	ı	1	J	_	1	1			l									

<sup>\*(</sup>See instructions and spaces for additional data on page 2)

Produced   Tested   Production   BEL   MCF   BBL   Corr. APT   Grovity	201 7 1										
Producted   Predict   Production   SSL   MCP   BSL   Corr. APT   Cravity				Test	loa	Goo	Water	Dil Consite	Con	D. J. C. M. J.	
Size   Prog.   Prog.   Rate   BBL   MoCF   BBL   Ratio		Test Date	1							Production Method	
Date First   Test   Design   Test   Design   Test   Design   Desig		Flwg.		1		1	I .		Well Status		*
Date First   Ested Date   Education   Ested   Date   Companies   Ested   Date   Companies   Ested	28c. Prod	uction - Inte	rval D		1	<u> </u>	L	<u></u>			
Programme   Prog	Date First		Hours							Production Method	
NO MEASURABLE CAS  30. Summary of Percont Zones (Include Aquifers):  Show all important zones of provaly and contents thereof: Cored intervals and all drill-stom tests, including depth interval tested, cushion used, time tool open, flowing and shartin pressures and  Formation  Top  Bottom  Descriptions, Contents, etc.  Formation  Top  GARDEN GLC.CH.MRX  SERFT  SASAL CARDONATE  MOSSTICH  31. Indicates which items have been attached by placing a check in the appropriate boxes:    GEOLOGICAL MARKERS    GARDEN GLC.CH.MRX   GARDEN GLC.CH		Flwg.							Well Status	1	
Summary of Porous Zones (Include Aquifers):	29. Dispos	sition of Gas	S (Solid, us	ed for fuel, ve	nted, etc.)	•					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, custion used, time tool open, flowing and shut-in pressures and recoveries.  Formation Top Bottom Descriptions, Contents, etc.  Name Top Mess. Depth GARDEN GULCH HIRK GARDEN GULCH HIRK GARDEN GULCH HIRK GARDEN GULCH 44597  GARDEN GULCH 12  GARDEN GULCH 18  GARDEN GULCH 18  GARDEN GULCH 18  GARDEN GULCH 18  GARDEN GULCH 2  FOURT 3  Autor 19  GARDEN GULCH 18  GARDEN GULCH 18  GARDEN GULCH 2  FOURT 3  Autor 19  GARDEN GULCH 18  GARDEN GULCH 2  FOURT 3  Autor 19  GARDEN GULCH 18  GAR	NO MEASU	RABLE GAS									
including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.  Formation Top Bottom Descriptions, Contents, etc.  Name Top  Mess, Depth  GARDEN GLICH MEK GARDEN GLICH MEK GARDEN GLICH MEK GARDEN GLICH AND GARDEN GLICH MEK GARDEN GLICH 1  GARDEN GLICH AND GARDEN GLICH 2  FONT 3  4019  FONT 3  A019  BOUGLAS GREEK MEK GENT 3  SESSI*  B LAMESTONE MEK GARDENATE MEK GARDENATE MEK GARDENATE MEK GARDENATE MEK GARDENATE  B LAMESTONE MEK GARDENATE  B LAMESTONE MEK GROWN  WASATCH  32. Additional remarks (include plugging procedure):  33. Indicate which items have been attached by placing a check in the appropriate boxes:	30. Sumn	nary of Poro	us Zones	(Include Aqui	fers):				31. Format	ion (Log) Markers	
Potention   Top   Bottom   Descriptions, Contents, etc.   Name   Meas. Depth	includi	ng depth int	zones of perval teste	porosity and c d, cushion use	ontents the	ereof: Cored in ol open, flowin	ntervals and all ig and shut-in j	l drill-stem tests, pressures and	GEOLOG	SICAL MARKERS	
GARDEN GULCH 1 4897  GARDEN GULCH 2 48167  GARDEN GULCH 2 48167  FONT 3 1903  X MRKR 51437  YMRKR 51437  YMRKR 51437  DOUBLAS CREEK MRK 505917  B LIMESTONE MRK 6757  GS797  GS79	Form	nation	Тор	Bottom		Descr	riptions, Conte	ents, etc.		Name	
GARDEN GULCH 2   4495											•
POINT 3   4903°   XMRKR   5148°   5149°   51											
32. Additional remarks (include plugging procedure):  33. Indicate which items have been attached by placing a check in the appropriate boxes:    Beasal Carbonate									GARDEN G POINT 3	ULCH 2	
B CARBONATE WRK CASTLE PEAX  BASAL CARBONATE WASATCH  32. Additional remarks (include plugging procedure):  33. Indicate which items have been attached by placing a check in the appropriate boxes:									X MRKR Y MRKR	•	
CASTLE PEAK   6173'											
32. Additional remarks (include plugging procedure):  33. Indicate which items have been attached by placing a check in the appropriate boxes:    Electrical/Mechanical Logs (1 full set req'd)											
33. Indicate which items have been attached by placing a check in the appropriate boxes:    Electrical/Mechanical Logs (I full set req'd.)										BONATE	
Electrical/Mechanical Logs (1 full set req'd.)  Sundry Notice for plugging and cement verification  Core Analysis  Other: Drilling Daily Activity  34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*  Name (please print) Jennifer Peatross  Signature  Date  O3/04/2013  Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any	32. Additi	onal remark	s (include	plugging pro	cedure):						
Electrical/Mechanical Logs (1 full set req'd.)  Sundry Notice for plugging and cement verification  Core Analysis  Other: Drilling Daily Activity  34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*  Name (please print) Jennifer Peatross  Signature  Date  O3/04/2013  Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any											
Electrical/Mechanical Logs (1 full set req'd.)  Sundry Notice for plugging and cement verification  Core Analysis  Other: Drilling Daily Activity  34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*  Name (please print) Jennifer Peatross  Signature  Date  O3/04/2013  Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any	33. Indica	te which ite	ms have be	en attached b	y placing	a check in the	appropriate bo	xes:			
Sundry Notice for plugging and cement verification										T Pinetin 10	
Name (please print) Jennifer Peatross  Signature  Date    Production Technician   03/04/2013   0			-	•	•					•	
Signature Date 03/04/2013  Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any						mation is com	plete and corre	ect as determined fr	om all available	records (see attached instruction	s)*
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or franchetent statements or representations as to any matter within its jurisdiction			exints) Je	nnifer Peatr	oss						
THE PERSON OF TH	Title 18 U. false, fictit	S.C. Section	n 1001 and	Title 43 U.S.	C. Section	1212, make it	a crime for ar	ny person knowingl jurisdiction.	y and willfully to	o make to any department or age	ncy of the United States any

(Continued on page 3)



# **NEWFIELD EXPLORATION**

USGS Myton SW (UT) SECTION 22 T8S, R17E B-27-8-17

Wellbore #1

Design: Actual

# **Standard Survey Report**

21 February, 2013





Survey Report



Company:

NEWFIELD EXPLORATION

Project:

USGS Myton SW (UT)

Site: Well SECTION 22 T8S, R17E

Wellbore: Design:

Wellbore #1

B-27-8-17

Actual

Local Co-ordinate Reference:

**TVD Reference:** 

MD Reference:

Well B-27-8-17

B-27-8-17 @ 5184.0ft (NDSI SS #2)

B-27-8-17 @ 5184.0ft (NDSI SS #2)

North Reference:

**Survey Calculation Method:** 

Database:

Minimum Curvature

EDM 2003.21 Single User Db

Project

USGS Myton SW (UT), DUCHESNE COUNTY, UT, USA

Map System:

US State Plane 1983

Geo Datum:

North American Datum 1983

Map Zone:

Utah Central Zone

System Datum:

Mean Sea Level

Site

From:

SECTION 22 T8S, R17E, SEC 22 T8S, R17E

Site Position:

Lat/Long

Northing: Easting:

7,208,900.00 ft

Latitude:

Longitude:

40° 6' 1.964 N

Position Uncertainty:

Slot Radius:

2,062,000.00ft

109° 59' 34.084 W

0.0 ft

**Grid Convergence:** 

0.97°

Well

B-27-8-17, SHL LAT: 40 05 55.31 LONG: -109 59 25.92

Well Position +N/-S

+E/-W

0.0 ft 0 0 ft Northing: Easting:

7,208,237.49 ft 2,062,645.60 ft

Latitude: Longitude: 40° 5' 55.310 N

**Position Uncertainty** 

0.0 ft

Wellhead Elevation:

5,184.0 ft

Ground Level:

109° 59' 25.920 W 5,172.0 ft

Wellbore

Wellbore #1

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

IGRF2010

1/5/2012

11.22

65.84

52,257

Design

**Audit Notes:** 

Version:

1.0

Actual

Phase:

ACTUAL

Tie On Depth:

0.0

Vertical Section:

Depth From (TVD) (ft)

0.0

+N/-S (ft) 0.0

+E/-W (ft) 0.0

Direction (°)

142.39

Survey Program

Date 2/21/2013

From (ft)

To (ft)

Survey (Wellbore)

**Tool Name** 

Description

345.0

7,041.0 Survey #1 (Wellbore #1)

MWD

MWD - Standard

Survey

Measured Depth	inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	+N/-S (ft)	+E/-₩ (ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
345.0	0.70	155.50	345.0	-1.9	0.9	2.1	0.20	0.20	0.00
376.0	0.80	166.20	376.0	-2.3	1.0	2.4	0.55	0.32	34.52
406.0	1.00	169.20	406.0	-2.8	1.1	2.9	0.68	0.67	10.00
437.0	1.00	169.70	437.0	-3.3	1.2	3.3	0.03	0.00	1.61
468.0	1.00	160.60	468.0	-3.8	1.3	3.8	0.51	0.00	-29.35
498.0	1.10	150.80	498.0	-4.3	1.6	4.4	0.68	0.33	-32.67
528.0	1.10	139.00	528.0	-4.8	1.9	4.9	0.75	0.00	-39.33
559.0	1.10	130.00	559.0	-5.2	2.3	5.5	0.56	0.00	-29.03
590.0	1.10	127.00	590.0	-5.6	2.8	6.1	0.19	0.00	-9.68
620.0	1.10	127.70	619.9	-5.9	3.2	6.7	0.04	0.00	2.33
651.0	1.10	128.20	650.9	-6.3	3.7	7.2	0.03	0.00	1.61
681.0	1.30	135.40	680.9	-6.7	42	7.9	0.83	0.67	24.00



Survey Report



Company:

NEWFIELD EXPLORATION

Project: Site: USGS Myton SW (UT) SECTION 22 T8S, R17E

Well:

B-27-8-17

Wellbore: Design:

Wellbore #1 Actual Local Co-ordinate Reference:

TVD Reference: MD Reference:

dinate Reference: Well B-27-8-17

B-27-8-17 @ 5184.0ft (NDSI SS #2) B-27-8-17 @ 5184.0ft (NDSI SS #2)

North Reference:

.,...

Survey Calculation Method:

Minimum Curvature

Database:

EDM 2003.21 Single User Db

## Survey

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
712.0	1.60	143.40	711.9	-7.3	4.7	8.6	1.17	0.97	25.81
743.0	1.70	143.30	742.9	-8.0	5.2	9.5	0.32	0.32	-0.32
773.0	1.90	143.60	772.9	-8.8	5.8	10.5	0.67	0.67	1.00
804.0	2.10	144.40	803.9	-9.6	6.4	11.6	0.65	0.65	
834.0	2.50	148.40	833.9	-10.7	7.1	12.8			2.58
864.0	2.90	147.00	863.8	-11.8			1.44	1.33	13.33
895.0	3.30	149.30	894.8	-11.0	7.8 8.7	14.2 15.8	1.35 1.35	1.33 1.29	-4.67 7.42
925.0	3.70	146.40	924.7	-14.8	9.7	17.7			
955.0	4.20	145.60	954.6	-16.5			1.46	1.33	-9.67
986.0	4.70				10.8	19.7	1.68	1.67	-2.67
		144.90	985.6	-18.5	12.2	22.1	1.62	1.61	-2.26
1,017.0	5.20	145.10	1,016.4	-20.7	13.8	24.8	1.61	1.61	0.65
1,060.0	5.90	145.40	1,059.2	-24.1	16.1	28.9	1.63	1.63	0.70
1,104.0	6.50	146.00	1,103.0	-28.0	18.8	33.7	1.37	1.36	1.36
1,148.0	7.20	146.60	1,146.7	-32.4	21.7	38.9	1.60	1.59	1.36
1,192.0	7.60	145.90	1,190.3	-37.1	24.9	44.6	0.93	0.91	-1.59
1,235.0	8.00	143.60	1,232.9	-41.9	28.2	50.4	1.18	0.93	-5.35
1,279.0	8.66	142.00	1,276.4	-47.0	32.1	56.8	1.59	1.50	-3.64
1,323.0	9.30	142.00	1,319.9	-52.4	36.3	63.6	1.45	1.45	0.00
1,367.0	9.80	143.80	1,363.3	-58.2	40.7	70.9	1.32	1.14	4.09
1,411.0	10.60	144.90	1,406.6	-64.5	45.3	78.7	1.87	1.82	2.50
1,455.0	11.40	145.30	1,449.8	-71.4	50.1	87.1	1.83	1.82	0.91
1,499.0	12.00	144.00	1,492.9	-78.7	55.2	96.0	1.49	1.36	-2.95
1,542.0	12.40	142.80	1,534.9	-86.0	60.6	105.1	1.10	0.93	-2.79
1,586.0	12.59	141.90	1,577.9	-93.5	66.5	114.6	0.62		
1,630.0	13.45	141.30	1,620.7	-101.3	72.6			0.43	-2.05
1,674.0	14.30	142.10	1,663.4			124.6	1.98	1.95	-1.36
1,717.0	14.80	143.40	1,705.1	-109.6 -118.2	79.1 85.7	135.1 145.9	1.98 1.39	1.93 1.16	1.82 3.02
1,761.0	15.10	144.60	1,747.6	-127.4	92.4				
1,805.0	15.80	145.70	1,790.0			157.3	0.98	0.68	2.73
1,849.0	16.50			-137.0	99.1	169.0	1.72	1.59	2.50
		145.00	1,832.2	-147.0	106.0	181.2	1.65	1.59	-1.59
1,892.0	17.00	145.60	1,873.4	-157.2	113.1	193.6	1.23	1.16	1.40
1,936.0	17.20	145.30	1,915.5	-167.9	120.4	206.5	0.50	0.45	-0.68
1,980.0	17.10	144.20	1,957.5	-178.5	127.9	219.4	0.77	-0.23	-2.50
2,024.0	17.45	145.00	1,999.5	-189.1	135.5	232.5	0.96	0.80	1.82
2,067.0	17.60	143.20	2,040.5	-199.6	143.1	245.4	1.31	0.35	-4.19
2,111.0	17.14	142.70	2,082.5	-210.1	151.0	258.6	1.10	-1.05	-1.14
2,155.0	17.20	144.50	2,124.6	-220.6	158.7	271.6	1.22	0.14	4.09
2,199.0	16.60	145.80	2,166.7	-231.0	166.0	284.3	1.61	-1.36	2.95
2,242.0	16.10	144.40	2,207.9	-241.0	172.9	296.4	1.48	-1.16	-3.26
2,286.0	15.70	142.50	2,250.2	-250.7	180.1	308.5	1.49	-0.91	-4.32
2,330.0	15.25	141.25	2,292.7	-259.9	187.3	320.2	1.27	-1.02	-2.84
2,374.0	15.12	141.96	2,335.1	-268.9	194.5	331.7	0.52	-0.30	1.61
2,418.0	15.00	143.01	2,377.6	-278.0	201.4	343.2	0.68	-0.27	2.39
2,461.0	14.90	140.10	2,419.2	-286.7	208.3	354.3	1.76	-0.23	-6.77
2,505.0	15.20	138.20	2,461.6	-295.3	215.8	365.7	1.76	-0.23 0.68	
2,549.0	15.34	139.32	2,504.1	-304.0	223.5				-4.32
2,593.0	15.21	139.52	2,546.5	-304.0 -312.8	223.5 231.0	377.2 388.8	0.74 0.32	0.32 -0.30	2.55 0.50
2,637.0	15.30	139.45	2,589.0	-321.6	238.5	400.4	0.21		
2,681.0	15.95	141.30	•					0.20	-0.20
			2,631.4	-330.8	246.1	412.2	1.86	1.48	4.20
2,725.0	16.00	142.40	2,673.7	-340.3	253.5	424.3	0.70	0.11	2.50
2,769.0	15.10 15.20	141.20	2,716.0	-349.6	260.8	436.1	2.17	-2.05	-2.73
2,813.0	15.30	141.30	2,758.5	-358.6	268.1	447.6	0.46	0.45	0.23
2,857.0	15.60	141.80	2,800.9	-367.7	275.3	459.4	0.75	0.68	1.14
2,901.0	16.00	142.00	2,843.3	-377.2	282.7	471.3	0.92	0.91	0.45



Survey Report



Company:

NEWFIELD EXPLORATION

Project: Site:

USGS Myton SW (UT)

Well:

SECTION 22 T8S, R17E B-27-8-17

Wellbore:

Wellbore #1

Design:

Actual

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

**Survey Calculation Method:** Database:

Well B-27-8-17

B-27-8-17 @ 5184.0ft (NDSI SS #2)

B-27-8-17 @ 5184.0ft (NDSI SS #2)

Minimum Curvature

EDM 2003.21 Single User Db

## Survey

Vieasured Depth (ft)	Inclination (°)	Azimuth	Vertical Depth (ft)	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(,	()	(°)	(14)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
2,945.0	16.40	143.00	2,885.5	-386.9	290.2	483.6	1.11	0.91	2.27
2,989.0	16.50	142.00	2,927.7	-396.8	297.8	496,1	0.68	0.23	-2.27
3,033.0	16.80	142.90	2,969.9	-406.8	305.5	508.7	0.90	0.68	2.05
3,077.0	17,40	143.70	3,011.9	-417.2	313.2	521.6	1.46	1.36	1.82
3,120.0	17.30	142.60	3,053.0	-427.4	320.9	534.4	0.80	-0.23	-2.56
3,164.0	17.10	141.90	3,095.0	-437.7	328.9	547.5	0.65	-0.45	-1.59
3,208.0	16.10	140.20	3,137.2	-447.5	336.8	560.0	2.53	-2.27	-3.86
3,252.0	14.60	137.80	3,179.6	-456.3	344.4	571.6	3.70	-3.41	-5.45
3,296.0	14.50	136.80	3,222,2	-464.4	351.9	582.7	0.61	-0.23	-2.27
3,339.0	15.10	136.80	3,263.8	-472.4	359.4	593.6	1.40	1.40	0.00
3,383.0	15.60	137.10	3,306.2	-480.9	367.4	605.2	1.15	1.14	0.00
3,427.0	16.20	137.00	3,348.5	-489.8	375.6	617.2	1.37	1.36	-0.23
3,471.0	16.20	137.10	3,390,8	-498.7	383.9	629.4	0.06	0.00	0.23
3,515.0	16.20	137.70	3,433.0	-507.8	392.2	641.6	0.38		
3,559.0	16.80	139.00	3,475.2	-507.0 -517.1	400.5	654.1	1.60	0.00 1.36	1.36
3,602.0	17.20	140.70	3,516.3	-526.7	408.7	666.7	1.48	0.93	2.95
3,646.0	16.60	139.80	3,558.4	-536.6	416.8	679.4	1.40	-1.36	3.95
3,690.0	15.80	139.00	3,600.7	-545.9	424.8	691.7	1.49	-1.82	-2.05 -1.82
3,734.0	15.80	140.00	3,643.0	-555.0	432.6	703.7	0.62	0.00	
3,778.0	16.30	142.00	3,685.3	-564.4	440.2	703.7 715.8	1.69	1.14	2.27 4.55
3,822.0	16.80	144.20	3,727.5	-574.5	447.8	728.3	1.82	1.14	4.50 5.00
3,865.0	16.60	144.60	3,768.7	-584.5	455.0	740.7	0.54	-0.47	0.93
3,909.0	16.10	143.70	3,810.9	-594.6	462.2	753.1	1.27	-1.14	-2.05
3,953.0	15.90	143.30	3,853.2	-604.3	469.4	765.2	0.52		
3,997.0	15.80	143.40	3,895.5	-613.9	476.6	703.2 777.2	0.52	-0.45 -0.23	-0.91
4,040.0	16.10	144.70	3,936.8	-623.5	483.5	789.0	1.08	-0.23 0.70	0.23
4,084.0	16.60	145.70	3,979.1	-633.7	490.6	801.4	1.00		3.02
4,128.0	16.50	144.70	4,021.2	-644.0	497.8	813.9	0.69	1.14 -0.23	2.27 -2.27
4,172.0	16.10	144.20	4,063.5	-654.0	504.9				
4,216.0	15.35	144.10	4,105.8	-663.7	511.9	826.3 838.2	0.96	-0.91	-1.14
4,259.0	14.70	144.80	4,147.4	-672.8	518.4	849.3	1.71	-1.70	-0.23
4,302.0	14.70	145.50	4,188.9	-681.7	524.6	860.2	1.57 0.41	-1.51 0.00	1.63
4,345.0	14.20	144.95	4,230.6	-690.5	530.8	870.9	1.21	-1.16	1.63 -1.28
4,389.0	14.58	144.70	4,273.2	-699.5					
4,433.0	15.00	141.80	4,273.2 4,315.7	-699.5 -708.5	537.1 543.8	881.9 893.1	0.88	0.86	-0.57
4,477.0	15.10	140.70	4,358.2	-706.5 -717.4	543.8 550.9	893.1 904.5	1.93 0.69	0.95	-6.59
4,520.0	15.60	140.68	4,399.7	-717.4 -726.2	550.9 558.1	904.5 915.9	1.16	0.23 1.16	-2.50
4,564.0	15.90	140.80	4,442.1	-735.4	565.7	927.8	0.69	0.68	-0.05 0.27
4,608.0	15.40	141.50	4,484.4	-744.7					
4,652.0	16.00	141.50	4,464.4 4,526.8	-744.7 -754.1	573.1 580.4	939.7	1.21	-1.14	1.59
4,695.0	15.70	144.20	4,526.6 4,568.1	-754.1 -763.6		951.6	1.82	1.36	4.43
4,739.0	15.78	144.30	4,500.1 4,610.5	-763.6 -773.3	587.3 594.3	963.3 975.3	0.84	-0.70	1.74
4,783.0	15.30	143.90	4,652.9	-773.3 -782.8	601.2	975.3 987.0	0.19 1.12	0.18 -1.09	0.23 -0.91
4,827.0									
4,827.0 4,870.0	15.10	143.50	4,695.3	-792.1	608.0	998.6	0.51	-0.45	-0.91
4,870.0 4,914.0	14.40	143.40	4,736.9	-800.9	614.6	1,009.5	1.63	-1.63	-0.23
4,914.0	14.40 14.50	142.00	4,779.5	-809.6	621.2	1,020.5	0.79	0.00	-3.18
4,958.0 5,002.0	14.50 14.20	140.90 141.60	4,822.2 4,864.8	-818.2 -826.7	628.0 634.9	1,031.4	0.66	0.23	-2.50
						1,042.3	0.79	-0.68	1.59
5,046.0	14.30	141.00	4,907.4	-835.2	641.6	1,053.2	0.41	0.23	-1.36
5,090.0	14.90	140.70	4,950.0	-843.8	648.6	1,064.3	1.37	1.36	-0.68
5,134.0	15.60	141.20	4,992.5	-852.8	655.9	1,075.8	1,62	1.59	1.14
5,177.0	16.10	140.70	5,033.8	-861.9	663.3	1,087.6	1.21	1.16	-1.16
5,221.0	16.00	139.80	5,076.1	-871.2	671.1	1,099.7	0.61	-0.23	-2.05
5,265.0	15.90	140.40	5,118.4	-880.5	678.9	1,111.8	0.44	-0.23	1.36



Survey Report



Company:

NEWFIELD EXPLORATION

Project: Site:

USGS Myton SW (UT) SECTION 22 T8S, R17E

Well: Wellbore:

B-27-8-17 Wellbore #1

Design:

Actual

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Well B-27-8-17

B-27-8-17 @ 5184.0ft (NDSI SS #2)

B-27-8-17 @ 5184.0ft (NDSI SS #2)

Minimum Curvature

EDM 2003.21 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,309.0	16.40	141.70	5,160.7	-890.0 ←	<b>&gt;</b> 686.5	1,124.0	1.40	1.14	2.95
5,353.0	16.70	142.30	5,202.9	-899,9	694.3	1,136.6	0.78	0.68	1.36
5,396.0	16.70	142.30	5,244.0	-909.7	701.8	1,148.9	0.00	0.00	0.00
5,440.0	16.30	142.00	5,286.2	-919.5	709.5	1,161.4	0.93	-0.91	-0.68
5,484.0	16.40	142.70	5,328.4	-929.3	717.1	1,173.8	0.50	0.23	1.59
5,528.0	16.50	143.50	5,370.6	-939.3	724.5	1,186.3	0.56	0.23	1.82
5,571.0	16.20	143.90	5,411.9	-949.1	731.7	1,198.4	0.75	-0.70	0.93
5,615.0	15.70	144.00	5,454.2	-958.8	738.8	1,210,5	1.14	-1.14	0.23
5,655.9	15.23	143.63	5,493.7	-967.7	745.3	1,221.4	1.16	-1.14	-0.91
B-27-8-17 TO	<b>ST</b>								
5,659.0	15.20	143.60	5,496.6	-968.3	745.7	1,222.2	1.16	-1.14	-0.94
5,703.0	15.00	144.10	5,539.1	-977.6	752.5	1,233.6	0.54	-0.45	1.14
5,747.0	14.90	144.60	5,581.6	-986.8	759.1	1,245.0	0.37	-0.23	1,14
5,791.0	14.80	145.12	5,624.1	-996.0	765.6	1,256.3	0.38	-0.23	1.18
5,835.0	14.40	144.95	5,666.7	-1,005.1	772.0	1,267.3	0.91	-0.91	-0.39
5,879.0	14.30	144.10	5,709.4	-1,014.0	778.3	1,278.2	0.53	-0.23	-1.93
5,923.0	13.80	143.26	5,752.0	-1,022.6	784.6	1,288.9	1.23	-1.14	-1.91
5,966.0	14.00	143.20	5,793.8	-1,030.9	790.8	1,299.2	0.47	0.47	-0.14
6,010.0	14.20	143.10	5,836.5	-1,039.4	797.2	1,310.0	0.46	0.45	-0.23
6,054.0	13.80	140.40	5,879.1	-1,047.8	803.8	1,320.6	1.74	-0.91	-6.14
6,097.0	13.30	139.10	5,920.9	-1,055.5	810.3	1,330.7	1.36	-1.16	-3.02
6,141.0	13.70	137.20	5,963.7	-1,063.1	817.2	1,340.9	1.36	0.91	-4.32
6,185.0	13.88	135.70	6,006.5	-1,070,7	824.4	1,351.3	0.91	0.41	-3.41
6,229.0	14.75	136.40	6,049.1	-1,078.6	832.0	1,362.1	2.02	1.98	1.59
6,273.0	15.10	138.80	6,091.6	-1,086.9	839.6	1,373.4	1.61	0.80	5.45
6,316.0	14.70	139.80	6,133.2	-1,095.3	846.8	1,384.5	1.11	-0.93	2.33
6,360.0	15.20	142.00	6,175.7	-1,104.1	854.0	1,395.8	1.72	1.14	5.00
6,404.0	14.70	142.60	6,218.2	-1,113.1	860.9	1,407.2	1.19	-1.14	1.36
6,448.0	14.90	143.50	6,260.7	-1,122.1	867.7	1,418.4	0.69	0.45	2.05
6,491.0	14.30	144.20	6,302.3	-1,130.8	874.0	1,429.2	1.45	-1.40	1.63
6,535.0	13.60	145.00	6,345.0	-1,139.5	880.2	1,439.8	1.65	-1.59	1.82
6,579.0	12.80	145.90	6,387.9	-1,147.8	885.9	1,449.9	1.88	-1.82	2.05
6,622.0	12.10	146.20	6,429.9	-1,155.4	891.1	1,459.1	1.63	-1.63	0.70
6,666.0	12.30	143.70	6,472.9	-1,163.1	896.4	1,468.4	1.28	0.45	-5.68
6,710.0	13.00	143.80	6,515.8	-1,170.8	902.1	1,478.0	1.59	1.59	0.23
6,754.0	13.40	144.50	6,558.6	-1,179.0	908.0	1,488.1	0.98	0.91	1.59
6,798.0	13.70	144.40	6,601.4	-1,187.4	914.0	1,498.4	0.68	0.68	-0.23
6,842.0	13.70	144.40	6,644.2	-1,195.8	920.1	1,508.8	0.00	0.00	0.00
6,885.0	14.00	144.60	6,685.9	-1,204.2	926.0	1,519.1	0.71	0.70	0.47
6,929.0	13.60	145.10	6,728.6	-1,212.8	932.1	1,529.6	0.95	-0.91	1.14
6,973.0	13.20	146.00	6,771.5	-1,221.2	937.8	1,539.8	1.03	-0.91	2.05
6,989.0	13.10	146.30	6,787.0	-1,224.2	939.9	1,543.4	0.76	-0.63	1.88
7,041.0	13.10	146.30	6,837.7	-1,234.0	946 4	1,555.2	0.00	0.00	0.00

Checked By:	Approved By:	Date:	



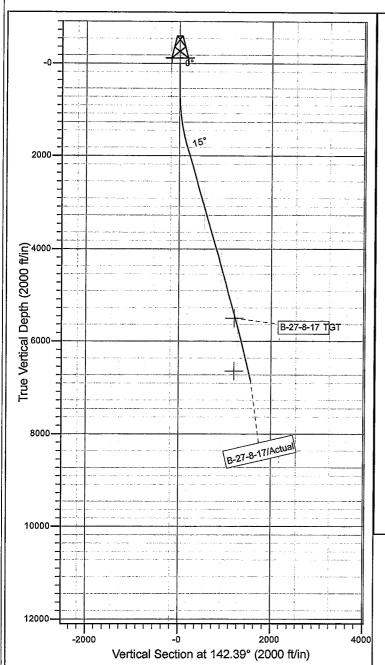
Project: USGS Myton SW (UT) Site: SECTION 22 T8S, R17E

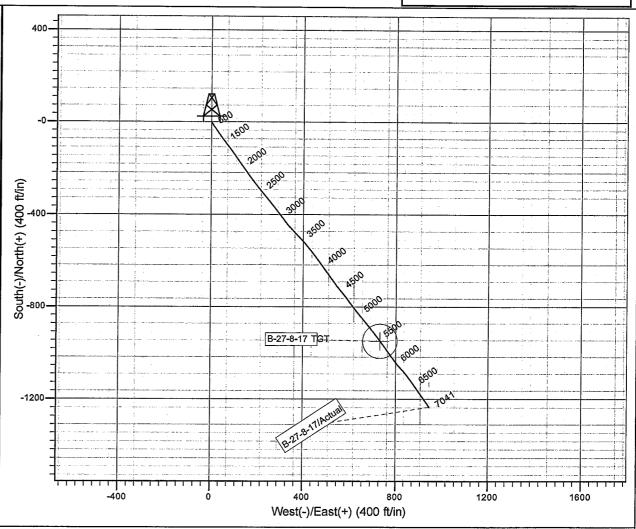
Well: B-27-8-17 Wellbore: Wellbore #1 Design: Actual



Azimuths to True North Magnetic North: 11.22°

Magnetic Field Strength: 52257.2snT Dip Angle: 65.84° Date: 1/5/2012 Model: IGRF2010







Design: Actual (B-27-8-17/Wellbore #1)

Created By: Sarah Webb

Date:

13:58, February 21 201\$

THIS SURVEY IS CORRECT TO THE BEST OF MY KNOWLEDGE AND IS SUPPORTED BY ACTUAL FIELD DATA